

Scoring table:	BLOSUM62	Gapop 10.0 , Gapext 0.5	Alignments
Searched:	1612378 seqs, 512079187 residues		
Total number of hits satisfying chosen parameters:	1612378		
Minimum DB seq length:	0		
Maximum DB seq length:	2000000000		
Post-processing:	Minimum Match 0% Maximum Match 100% Listing first 45 summaries		
Database :	UniProt 03: 1: uniprot_sprot: 2: uniprot_trembl: *		
Pred. No.	1612378	is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.	
SUMMARIES			
Result No.	Score	Query	Description
		Match Length	ID
1	30.6	100.0	61 TENG_RANTE
2	24.5	80.1	61 TEMR_RANTE
3	219.5	71.7	58 TEMH_RANTE
4	212.1	69.3	66 PLAN_RANTE
5	211.5	69.1	71 BRLE_RAVES
6	184.5	61.9	65 GGNS_RANRU
7	184.5	60.3	69 BRIB_RANPI
8	15.5	50.7	331 Q7T2V5
9	14.8	48.4	80 GGNA_RANRU
10	14.5	47.4	71 RNPP_RANPI
11	14.4	47.1	62 PLR_RANPI
12	13.8.5	45.3	74 BRTA_RANTE
13	13.8.5	45.3	74 BRPB_RANTE
14	13.7.5	44.9	74 BR2F_RAVES
15	13.6	44.4	62 RAVT_RANTE
16	13.5	44.1	70 RNA_RANPI
17	13.3	43.5	66 Q800R3
18	12.0	39.2	84 ESRB_RANES
19	116.5	38.1	62 Q800F1
20	11.1	36.3	71 Q800S2
21	11.0	35.9	75 Q800R8
22	10.9	35.6	72 Q800R8
23	10.9	35.6	77 GALE_KASSE
24	10.8	35.3	75 Q800R9
25	10.7	35.0	75 Q800S0
26	106.5	34.8	72 DM55_AGAN
27	10.6	34.6	81 DRG1_PHYBI
28	10.6	34.6	201 DEM_PACDA
29	105.5	34.5	76 DNS4_PHYBI
30	10.5	34.3	72 DNS4_AGAN
31	10.5	34.3	79 Q7t3K6
32	105	34.3	79 Q7t3K7
33	105	34.3	80 DMS3_PACDA
34	103.5	33.8	70 Q800R4
35	103.5	33.8	73 DMS2_AGAN
36	103.5	33.8	76 O7t3K8
37	103	33.7	71 Q800S1
38	103	33.7	75 DRG2_PHYBI
39	103	33.7	77 DMS1_PHYBI
40	103	33.7	78 P80282
41	103	33.7	80 Q93226
42	103	33.7	81 DMS2_PHYBI
43	102.5	33.5	72 P81490
44	102.5	33.5	77 DERB_PHYBI
45	101.5	33.2	2 Q800R6
46	101.5	33.2	2 Litoria_cae

RESULT 1			
TEMG_RANTE			
ID	TENG_RANTE	STANDARD:	PRT; 61 AA.
AC	P79875;		
DT	01-NOV-1997 (Rel. 35, Created)		
DT	01-NOV-1997 (Rel. 35, Last sequence update)		
DT	05-JUL-2004 (Rel. 44, Last annotation update)		
DR	Temporin G precursor.		
OS	Rana temporaria (European common Frog).		
OC	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
OC	Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.		
NCBI_TAXID	8407;		
RN	[1]		
RP	SEQUENCE FROM N.A.		
RC	TISSUE_SKIN;		
RX	MEDLINE=971175050; PubMed=9022710;		
RA	Simmaco M., Mignogna G., Canofeni S., Miele R., Mangoni M.L., Barra D.;		
RT	"Temporins, antimicrobial peptides from the European red frog Rana temporaria."		
RL	Eur. J. Biochem. 242:788-792(1996).		
CC	- FUNCTION: Has antibacterial activity against Gram-negative and Gram-positive bacteria.		
CC	- SUBCELLULAR LOCATION: Secreted.		
CC	- TISSUE_SPECIFICITY: Skin.		
CC	- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family. Brevinin subfamily.		
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CC	DR	InterPro: IPR004275; Brevinin.	
DR	DR	InterPro: IPR004275; Brevinin.	
KW	Amidation; Amphibian defense Peptide; Antibiotic; Signal.		
FT	SIGNAL	1 22	Potential.
PROPEP		23 44	Temporal.
FT	PEPTIDE	47 59	Temporal G.
MOD_RES		59 59	Leucine amide (G-60 provides amide group).
FT	FT	FT	DR
FT	SEQUENCE	61 AA;	InterPro: IPR004275; Brevinin.
FT	EDF5A8EC79DFDF9F2	CRC64;	
FT	Q800R9		
FT	SIGNAL	100 0%;	Score 306; DB 1; Length 61;
Best Local Similarity	100 0%;	Pred. No. 3.8e-25;	
Matches 61;	Conservative 0;	Mismatches 0;	Indels 0;
Qy	1 METLKSLLFLGLTINSLCBEERDAEERRDDLEERDVVEKFPPVIGRLNGILG 60		
Db	1 METLKSLLFLGLTINSLCBEERDAEERRDDLEERDVVEKFPPVIGRLNGILG 60		

RESULT 2									
ID	DRY	61 K 61	PEMB_RANTE	STANDARD;	PRT;	61 AA.			
OS			P79874;						
OC			01-NOV-1997 (Rel. 35, Created)						
OC			01-NOV-2004 (Rel. 44, Last annotation update)						
OC			Temporin B precursor.						
OX			Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana; NCBI_TaxID=8407;						
RN	[1]		SEQUENCE FROM N.A., SEQUENCE OF 47-56, AND SYNTHESIS OF 47-56.						
RP			PTISSUE=Skin, and Skin Secretion,						
RC			MEDLINE=97175050; PubMed=9022710;						
RX			Barra D.;						
RA			"Temporins, antimicrobial peptides from the European red frog Rana temporaria."						
RT			Eur. J. Biochem. 242:788-792(1996).						
RT			-1- FUNCTION: Has no antibacterial activity.						
CC			-1- SUBCELLULAR LOCATION: Secreted.						
CC			-1- TISSUE SPECIFICITY: Skin.						
CC			-1- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family. Brevinin subfamily.						
CC			This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).						
DN	[1]		SEQUENCE FROM N.A., SEQUENCE OF 47-59, AND SYNTHESIS OF 47-59.						
RP			PTISSUE=Skin, and Skin Secretion;						
RC			MEDLINE=97175050; PubMed=9022710;						
RA			Slivenco M., Mignogna G., Canofeni S., Miele R., Mangoni M.L., Barra D.;						
RT			"Temporins, antimicrobial peptides from the European red frog Rana temporaria."						
RT			Eur. J. Biochem. 242:788-792(1996).						
CC			-1- FUNCTION: Has antibacterial activity against Gram-positive bacteria.						
CC			-1- SUBCELLULAR LOCATION: Secreted.						
CC			-1- TISSUE SPECIFICITY: Skin.						
CC			-1- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family. Brevinin subfamily.						
CC			This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).						
DR	[1]		EMBL: Y09393; CAA70562.1; -						
DR			InterPro; IPR004275; Brevenin.						
DR			PFam; PF03032; Brevenin.1.						
DR			Amidation; Amphibian defense peptide; Antibiotic;						
DR			Direct protein sequencing; Signal.						
DR			POLYPEPTIDE; Peptide; Temporin B; Leucine amide (G-60 provides amide group).						
DR			SIGNAL; PROPEP; PEPTIDE; MOD_RES.						
DR			TEMPORIN B; Leucine amide (G-60 provides amide group).						
DR			SEQUENCE 61 AA; 7101 MW; B73F5689C300357 CRC64;						
DR			Query Match Score 245; DB 1; Length 61;						
DR			Best Local Similarity 75.4%; Pred. No. 1.2e-18; Indels 0; Gaps 0;						
DR			Matches 46; Conservative 9; Mismatches 6;						
DR			RESULT 4						
DR			RLXN_RANCA STANDARD; PRT; 66 AA.						
DR			AC P39084; ID RLXN_RANCA						
DR			DT 01-FEB-1995 (Rel. 31, Created)						
DR			DT 01-FEB-1995 (Rel. 31, Last sequence update)						
DR			DT 05-JUL-2004 (Rel. 44, Last annotation update)						
DR			Ranalexin precursor.						
DR			OS Rana catesbeiana (Bull frog).						
DR			OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.						
DR			NCBI_TaxID=8400;						
RN	[1]		SEQUENCE FROM N.A., AND SEQUENCE OF 47-66.						
RP			PTISSUE=Skin, and Skin Secretion,						
RC			MEDLINE=9419792; PubMed=814672;						
RX			Clark D.P.; Durrell S.; Maloy W.L.; Zasloff M.; Ranalexin. A novel antimicrobial peptide from bullfrog (Rana catesbeiana) skin, structurally related to the bacterial antibiotic.						

RT polymyxin.";	RC TISSUE-Skin secretion;
J. Biol. Chem. 269:10849-10855 (1994).	RX MEDLINE=93285327; PubMed=8508915; DOI=10.1016/0014-5793(93)81384-C;
[2] STRUCTURE BY NMR OF RANALEXIN.	RA Siammaco M.; Mignogna G.; Barra D.; Bossa F.;
RX MEDLINE=98227592; PubMed=95778480;	RT "Novel antimicrobial peptides from skin secretion of the European frog Rana esculenta."
RA Signal E.; Chavanne A.; Roch P.; Chiche L.; Grassby G.; Calas B.,	RL FEBS Lett. 324:159-161 (1993).
RA Aumelas A.;	-I- FUNCTION: Shows antibacterial activity against representative Gram-negative and Gram-positive bacterial species, and a very high hemolytic activity.
RT "Solution structure of the antimicrobial peptide ranalexin and a study of its interaction with perdeuterated dodecylphosphocholine micelles.";	CC Gram-negative and Gram-positive bacterial species, and a very high hemolytic activity.
RL Eur. J. Biochem. 253:221-228 (1998).	CC -I- SUBCELLULAR LOCATION: Secreted.
CC -I- FUNCTION: Potent microcidal activity, active against <i>S. aureus</i> and <i>E.coli</i> . It acts as well as a membrane-disruptive agent at higher concentrations.	CC -I- TISSUE SPECIFICITY: Skin.
CC -I- SUBCELLULAR LOCATION: Secreted.	CC -I- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family.
CC -I- TISSUE SPECIFICITY: Expressed by the skin dorsal glands.	CC -I- SUBCELLULAR LOCATION: Skin.
CC -I- DEVELOPMENTAL STAGE: Expression starts at metamorphosis and continues into adulthood.	CC -I- TISSUE SPECIFICITY: Belongs to the frog skin active peptide (FSAP) family.
CC -I- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family.	CC -I- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family.
CC -I- Brevinin subfamily.	CC -I- Brevinin subfamily.
CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement. (See http://www.isb-sib.ch/announce/ or send an email to licensee@isb-sib.ch).	CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement. (See http://www.isb-sib.ch/announce/ or send an email to licensee@isb-sib.ch).
CC EMBL; S69903; AAB30394.1; -.	CC EMBL; X77831; CAA54842.1; -.
DR PIR; A53744.	DR PIR; C53578; C53578.
DR InterPro; IPR004275; Brevinin.	DR InterPro; IPR004275; Brevinin.
DR Pfam; PF03032; Brevinin; 1.	DR Pfam; PF03032; Brevinin; 1.
KW Amphibian defense peptide; Antibiotic; Direct protein sequencing;	KW Amphibian defense peptide; Antibiotic; Direct protein sequencing;
KW Hemolysis; Signal.	KW Hemolysis; Signal.
FT SIGNAL 1 20 Potential.	FT SIGNAL 1 22 Potential.
FT PROPEP 21 44 Small acidic peptide.	FT PROPEP 23 45
FT PEPTIDE 47 66 Ranalexin.	FT PEPTIDE 48 71
FT DISULFID 60 66	FT DISULFID 65 71
SQ SEQUENCE 66 AA; 7815 MW; 036B8AD58A3C8513 CRC64;	FT VARIANT 60 60 L → P (in brevinin-1EC).
Query Match Score 212; DB 1; Length 71;	SQ SEQUENCE 71 AA; 8267 MW; 10900AC2BC71BB73 CRC64;
Best Local Similarity 69.3%; Pred. No. 4.2e-15;	Query Match Score 211.5%; DB 1; Length 71;
Matches 43; Conservative 9; Mismatches 7; Indels 0; Gaps 0;	Best Local Similarity 71.0%; Pred. No. 5.1e-15;
Qy 1 METLKSLLLFPLGTMNLCEERDADBERDLDERDVEKRPFPVIGRILNL 59	Matches 44; Conservative 7; Mismatches 10; Indels 1; Gaps 1;
Db 1 METLKSLLLFPLGTMNLCEERDADBERDLDERDVEKRPFPVIGRILNL 59	Qy 1 METLKSLLLFPLGTMNLCEERDADBERDLDERDVEKRPFPVIGRILNL 59
OS Rana rugosa (Wrinkled frog).	Db 1 METLKSLLLFPLGTMNLCEERDADBERDLDERDVEKRPFPVIGRILNL 60
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	OS Rana rugosa (Wrinkled frog).
OC Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.	OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
NCBI_TaxID=8401;	OC Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.
RN [1]	RN [1]
RESULT 5	RESULT 6
BR1E_RANES	GCNS_RANRU
ID BR1E_RANES	ID GCNS_RANRU
STANDARD;	STANDARD;
PRT; 71 AA.	PRT; 65 AA.
AC P80359; Q9J329;	AC P80359; Q9J329;
DT 01-NOV-1995 (Rel. 32, Created)	DT 01-NOV-1995 (Rel. 32, Created)
DT 01-OCT-1993 (Rel. 27, Created)	DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 01-FEB-1995 (Rel. 31, Last sequence update)	DT 05-JUL-2004 (Rel. 44, Last annotation update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)	DE Gaegurin-5 precursor.
DE Brevinin-1E precursor.	GN Name=GCNS;
OS Rana esculenta (Edible frog).	OS Rana rugosa (Wrinkled frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.	OC Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.
NCBI_TaxID=8401;	NCBI_TaxID=8401;
RN [1]	RN [1]
SEQUENCE FROM N.A.	SEQUENCE FROM N.A.
RC TISSUE-Skin;	RC TISSUE-Skin;
RX MEDLINE=94216303; PubMed=8163497;	RA Park J.M., Lee J.Y., Moon H.M., Lee B.J./
RA Siammaco M.; Mignogna G.; Barra D.; Bossa F.;	RL Submitted (MAY-1995) to the EMBL/GenBank/DDBJ databases.
RT "Antimicrobial peptides from skin secretions of <i>Rana esculenta</i> . Molecular cloning of cDNAs encoding esculetin and brevins and isolation of new active peptides.";	RX MEDLINE=95091844; PubMed=9599137;
RT J. Biol. Chem. 269:11956-11961 (1994).	RA Park J.M., Jung J.-E., Lee B.J.
RN [2]	RT "Antimicrobial peptides from the skin of a Korean frog, <i>Rana rugosa</i> .";
RP SEQUENCE OF 48-71, AND DISULFIDE BOND.	RL Biochem. Biophys. Res. Commun. 205:948-954 (1994).

-1- FUNCTION: Has a non-hemolytic activity. Has a broad spectrum of activity against both Gram-positive and Gram-negative bacteria, fungi and protozoa.

-1- SUBUNIT: Monomer.

-1- SUBCELLULAR LOCATION: Secreted.

-1- TISSUE SPECIFICITY: Skin.

-1- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family. Brevinin subfamily.

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EMBL; U22393; AAA64412.1; - .

DR PIR; S59962; S59962.

DR InterPro; IPR004275; Brevinin.

DR Pfam; PF03032; Brevinin. 1.

DR Amphibian defense peptide; Antibiotic; Direct protein sequencing;

KW Amphibian defense peptide; Antibiotic; Direct protein sequencing;

KW Fungicide; Signal. Potential.

DR PROPEP; 23 39 Gaegurin-5.

FT DISULFIDE 42 65 By similarity.

FT DISULFIDE 49 65 P -> K (in Ref. 2).

FT CONFLICT 58 58

SQ SEQUENCE 65 AA; 7414 MW; 31248056E67D4845 CRC64;

Query Match Score 189.5; DB 1; Length 65;

Best Local Similarity 61.9%; Pred. No. 1e-12; Matches 40; Conservative 8; Mismatches 6; Indels 5; Gaps 1;

Db Qy 61 K 61

RESULT 8

Q7T2V5 PRELIMINARY; PRT; 331 AA.

ID Q7T2V5 AC Q7T2V5; PRELIMINARY; PRT; 331 AA.

DT 01-OCT-2003 (TRMBMLrel. 25, Created)

DT 01-OCT-2003 (TRMBMLrel. 25, Last sequence update)

DT 01-MAR-2004 (TRMBMLrel. 26, Last annotation update)

DE Kininogen-1 precursor.

OS Rana schmackeri.

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.

OC NCBI_TAXID=110116;

RN [1] _TAXID=110116;

RP SEQUENCE FROM N.A.

RC TISSUE=Skin

AC Q8QFQS; P82842; STANDARD; PRT; 69 AA.

DT 10-OCT-2003 (Rel. 42, Created)

DT 10-OCT-2003 (Rel. 42, Last sequence update)

DT 05-JUL-2004 (Rel. 44, Last annotation update)

DB Brevinin-1Pb precursor.

OS Pipiens (Northern leopard frog).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.

OC NCBI_TAXID=8404;

RN [1]

RP Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.

[2] TISSUE=Skin secretion.

AC MEDLINE=20117700; PubMed=10651828;

RA Goraya J., Wang Y., Li Z., O'Flaherty M., Knopf F.C., Platz J.E., Conlon J.M.; "Peptides with antimicrobial activity from four different families isolated from the skins of the North American frogs *Rana luteiventris*, *Rana berlandieri* and *Rana pipiens*.";

RA Bur. J. Biochem. 267:894-900(2000).

-1- FUNCTION: Antibacterial activity against Gram-positive bacterium *S. aureus* and Gram-negative bacterium *E.coli*. Has activity against *C. albicans*.

CC -1- SUBCELLULAR LOCATION: Secreted (Probable).

CC -1- TISSUE SPECIFICITY: Skin.

CC -1- MASS SPECTROMETRY: MW=2277.1; METHOD=Electrospray; RANGE=46-69;

RN [3]

NOTE=Ref.2

-1- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family. Brevinin subfamily.

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EMBL; AJ427746; CAD20745.1; - .

DR InterPro; IPR004275; Brevinin.

DR Pfam; PF03032; Brevinin. 1.

DR Amphibian defense peptide; Antibiotic; Direct protein sequencing;

KW Fungicide; Signal. Potential.

FT SIGNAL 1 20

FT PROPEP 21 43 Brevinin-1Pb.

FT PEPTIDE 46 69 By similarity.

FT DISULFIDE 63 69

SQ SEQUENCE 69 AA; 7929 MW; 31B16331997DC170 CRC64;

Query Match Score 184.5; DB 1; Length 69;

Best Local Similarity 65.6%; Pred. No. 3.7e-12; Matches 40; Conservative 14; Mismatches 6; Indels 1; Gaps 1;

Qy 1 METIJKSLLFFLGTLNSCCEEDDADEERRDDDEBERDEVEKEFPVIGRLNLGILG 60

Db 1 MFTLNKPLLLFFLGTLNSCCEEB-NAEERBRIDDEDETDEVEREKFPLIAKVFPP 59

RESULT 8

Q7T2V5 PRELIMINARY; PRT; 331 AA.

ID Q7T2V5 AC Q7T2V5; PRELIMINARY; PRT; 331 AA.

DT 01-OCT-2003 (TRMBMLrel. 25, Created)

DT 01-OCT-2003 (TRMBMLrel. 25, Last sequence update)

DT 01-MAR-2004 (TRMBMLrel. 26, Last annotation update)

OS Rana schmackeri.

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.

OC NCBI_TAXID=110116;

RN [1] _TAXID=110116;

RP SEQUENCE FROM N.A.

RC TISSUE=Skin

AC Q2948838; DOI=10.1016/S0196-9781(03)00166-9;

RA Li L., Bjourson A.J., He J., Cai G., Rao P., Shaw C.; "Bradykinins and their cDNA from piebald odorous frog, Odorrrana schmackeri. skin.";

RT Peptides 24:863-872 (2003); DR GO: GO-0005576; C: extracellular; IEA.

RT "Bradykinin."; DR GO: GO-0042742; P: defense response to bacteria; IEA.

RT InterPro; IPR004275; Brevinin.

RT Pfam; PF03032; Brevinin. 1.

KW Signal.

FT SIGNAL 1 24 Potential.

FT CHAIN 97 105 bradykinin.

FT CHAIN 141 149 bradykinin.

FT CHAIN 185 193 bradykinin.

FT CHAIN 229 237 bradykinin.

FT CHAIN 273 281 bradykinin.

FT CHAIN 317 325 bradykinin.

SQ SEQUENCE 331 AA; 37680 MW; D7DF35CB3A45066D CRC64;

Query Match Score 50.7%; DB 2; Length 331;

Best Local Similarity	75.0%	Pred. No.	2.4e-08;	Mismatches	4;	Indels	3;	Gaps	1;	Query Match	48.4%;	Score	148;	DB	1;	Length	80;																			
Matches	33;	Conservative	4;	Mismatches	3;	Indels	4;	Gaps	1;	Best Local Similarity	49.3%;	Pred. No.	3.3e-08;	Matches	34;	Conservative	11;	Mismatches	14;	Indels	10;	Gaps	2;													
Qy	1	MFTLKKSLLLFFGLTINISLCBEBRDADEERRDLEERDV	44							Qy	1	METFLKSLLLFFGLTINISLCBEBRDADEERRDLEERDV	-	-	-	-	EVEKRFFPVIGRIL	55																		
Db	1	MFTLKKSLLLFFGLTINISLCBEBRDADEERRDLEERDV	40							Db	1	MFTLKKSLLLFFGLTINISLCBEBRDADEERRDLEERDV	-	-	-	-	K	56																		
										Qy	56	-----NGTL	59																							
RESULT 9										Db	61	VKGAAQGVVL	69																							
GGN4_RANRU	STANDARD;	PRT;	80 AA.							RESULT 10																										
AC	P80358; 091328; Rel. 32, Created)									RNPP_RANPI	ID	RN2P_RANPI	STANDARD;																							
DT	01-NOV-1995 (Rel. 35, Last sequence update)									AC	OBOFO4; P828477;																									
DT	05-JUL-2004 (Rel. 44, Last annotation update)									DT	10-OCT-2003 (Rel. 42, Created)																									
DE	Gaequin4 precursor.									DT	10-OCT-2003 (Rel. 42, Last sequence update)																									
GN	Name=GGN4;									DT	05-JUL-2004 (Rel. 44, Last annotation update)																									
OS	Rana rugosa (Wrinkled frog)									DE	Ranaturin-2P precursor.																									
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.									OS	Rana pipiens (Northern Leopard Frog).																									
OC	NCBI_TaxID=8410;									OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.																									
OX										OC	NCBI_TaxID=8404;																									
PN										RN																										
RP	SEQUENCE FROM N.A.									RP	SEQUENCE FROM N.A.																									
RC	TISSUE=Skin;									RC	TISSUE=Skin;																									
RX	MEDLINE=20461774; PubMed=11004488; DOI=10.1016/S0167-4781(00)00082-8;									RA	Parragher S.M.; Bjourson A.J.; Shaw C.;																									
RA	Kwon S.Y., Carlson B.A., Park J.M., Lee B.J.;									RA	"Cloning of Rana pipiens skin peptides."																									
RT	"Structural organization and expression of the gaequin 4 gene of Rana rugosa".									RA	Conlon J.M.;																									
RT	Biochim. Biophys. Acta 1492:185-190(2000).									RT	Peptides with antimicrobial activity from four different families isolated from the skins of the North American frogs Rana luteiventris, Rana berlandieri and Rana pipiens."																									
RN										RT	Eur. J. Biochem. 267:894-900(2000).																									
RN	SEQUENCE FROM N.A.									RX	TISSUE=Skin Secretion; MEDLINE=20117700; PubMed=10651828;																									
RC	TISSUE=Skin;									RA	Goraya J., Wang Y., Li Z., O'Flaherty M., Knoop F.C., Platz J.R., Conlon J.M.;																									
RX	MEDLINE=20461774; PubMed=11004488; DOI=10.1016/S0167-4781(00)00082-8;									RA	Peptides with antimicrobial activity against Gram-positive bacterium S.aureus and Gram-negative bacterium E.coli. Has activity against C.albicans.																									
RA	"Structural organization and expression of the gaequin 4 gene of Rana rugosa".									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC											
RT	Park J.M., Jung J.-E., Lee B.J.;									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC										
RL	"Antimicrobial peptides from the skin of a Korean frog, Rana rugosa.";									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC										
RA	Biochem. Biophys. Res. Commun. 205:948-954(1994).									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC										
CC	-i- FUNCTION: Has a non-hemolytic activity. Has a broad spectrum of activity against both Gram-positive and Gram-negative bacteria, fungi and protozoa.									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC										
CC	-i- SUBUNIT: Monomer.									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC									
CC	-i- TISSUE SPECIFICITY: Skin.									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC									
CC	-i- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family.									CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC									
CC										CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC	CC								
CC	This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).									DR	EMBL; AJ427747; CAD20746; 1;																									
DR	EMBL; AF213015; AAK26444; 1; -.									DR	InterPro; IPR04275; Brevenin.																									
DR	SS9961; SS9961.									DR	Pfam; PF03032; Brevenin; 1.																									
DR	InterPro; IPR04275; Brevenin.									KW	Amphibian defense peptide; Antibiotic; Direct protein sequencing;																									
DR	Pfam; PF03032; Brevenin; 1.									KW	Signal.																									
DR	Amphibian defense peptide; Antibiotic; Direct protein sequencing;									FT	SIGNAL	1	20																							
FT	Signal.									FT	PROPEP	21	44																							
FT	POTENTIAL.									FT	PEPTIDE	4	71																							
FT	By similarity.									FT	DISULFIDE	6	71																							
FT	Gaequin-4.									FT	SEQUENCE	71 AA:	7941 MW;																							
FT	Missing (in Ref. 2).									FT																										
FT	K -> L (in Ref. 3).									FT																										
FT	D75FC76D2995F4B6 CRC64;									FT																										
SEQUENCE	80 AA;	8695 MW;								FT																										
SQ										FT																										
										FT																										
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CC	DR	EMBL; AJ414584; CAC93861.1; -.	DR	GO; GO:0005576; C:extracellular; IDA.	DR	GO; GO:0050832; P:defense response to fungi; IDA.	DR	GO; GO:0050830; P:defense response to Gram-positive bacteria; IDA.	DR	InterPro; IPR04275; Brevinin.	DR		
CC	DR	PFam; PF03032; Brevinin. 1.	DR	Amidation; Amphibian defense peptide; Antibiotic;	DR	Cleavage on pair of basic residues; Direct protein sequencing;	DR	KW	KW	Fungicide; Hemolysis; Inflammatory response; Mast cell degranulation;	DR		
CC	DR	Signal.	FT	SIGNAL 1 20 Potential.	FT	PROTEIN 21 41 Peptide leucine arginine.	FT	PEPTIDE 44 61 Arginine amide (G-62 provides amide group).	FT	DISULFID 48 58	FT		
CC	DR	MOD_RES 61 61	SQ	SEQUENCE 62 AA; 7113 MW; C8FF7F58849A01A1C CRC64; Query Match Score 144; DB 1; Length 62; Best Local Similarity 52.6%; Pred. No. 6.8e-08; Matches 30; Conservative 11; Mismatches 6; Indels 10; Gaps 1;	Qy	1 MFTLKSILLLFLGLTINSLICEEEEDADEBERDDEVEKRFVPIGRILNG 57	Db	1 MFTLKSILLLFLGLTISSLCEQERDDDEDQEYTEQ-----VVRLVRG 47	RN	SEQUENCE FROM N.A.	RP		
CC	DR	BTXA_RANTE ID PB2268; RANTE	STANDARD; PRT; 74 AA.	DT	16-OCT-2001 (Rel. 40, Created)	DT	16-OCT-2001 (Rel. 40, Last sequence update)	DT	10-OCT-2003 (Rel. 42, Last annotation update)	DS	Brevinin 2ra precursor.	OS	
CC	RA	Simmaco M.; Mieli R.; Mangoni M.L.; Barra D.; TISSUE=Skin;	RA	"A cDNA clone encoding brevinin 2ra from Rana temporaria.";	RT	"A cDNA clone encoding brevinin 2ra from Rana temporaria.";	RL	Submitted (NOV-1999) to the EMBL/GenBank/DBJ databases.	CC	-I- FUNCTION: Shows antibacterial activity against representative Gram-negative and Gram-positive bacterial species (By similarity).	CC	-I- SUBCELLULAR LOCATION: Secreted.	CC
CC	OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana.	OC	-I- TISSUE SPECIFICITY: Skin.	CC	-I- SIMILARITY: Belongs to the frog skin active peptide (FSAP) family.	CC	Brevinin subfamily.	CC	This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).	CC		
CC	DR	EMBL; AJ251567; CAB61442.1; -.	DR	InterPro; IPR04275; Brevinin.	DR	PFam; PF03032; Brevinin. 1.	DR	Ambiphilic defense peptide; Antibiotic; Hemolysis; Signal.	FT	Potential.	FT		

RT biological function, mode of action and parameters involved in target specificity.";

RT Biochemist, 42:14023-14035(2003).

-I- FUNCTION: Has antibacterial activity against Gram-positive bacteria B.megaterium BmII, S.lentus and M.luteus, and Gram-negative bacteria E.coli D22, Y.pseudotuberculosis YP III, and P.syringae pv tabaci, and antifungal activity against C.albicans ATCC 10231, C.tropicalis, C.guilliermondii and P.nicotianae spores. Has weak hemolytic activity. The mature peptide inserts into the hydrophobic core of the bacterial cell membrane and increases permeability without disrupting membrane integrity.

Probably binds to the outer membrane surface before aggregating to form transmembrane pores.

-I- SUBCELLULAR LOCATION: Secreted (By similarity).

-I- TISSUE SPECIFICITY: Expressed by the skin granular glands, Brevinin subfamily.

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EMBL: AJ583866; CAA48162; 1; DR InterPro; IPR04275; Brevenin.

KW Amidation; Amphibian defense peptide; Antibiotic; Cleavage on pair of basic residues; Fungicide; Hemolysis; Signal.

FT SIGNAL 1 22 Potential.

FT PROPEP 23 43 Ranacyclin T.

FT CHAIN 44 60 By similarity.

FT DISULFID 49 59 Lyseine amide (G-61 provides amide group).

FT MOD_RES 60 60 55A4283837A11E82 CRC64;

SQ SEQUENCE 62 AA; 6993 MW;

Query Match 44.4%; Score 136; DB 1; Length 62;

Best Local Similarity 61.9%; Pred. No. 4.8e-07; Matches 26; Conservative 9; Mismatches 7; Indels 0; Gaps 0;

Qy 1 MFTLKKSLLLPFLGTTINISLCBEERDADEERDDLERDVE 42

Db 1 MFTLKKSLLLPFLGTTINISLCBEERDADEERDDLERDVE 42

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OM protein - protein search, using SW model

Run on: March 30, 2005, 17:20:45 ; Search time 43 Seconds
 (without alignments)
 136.494 Million cell updates/sec

Title: US-10-719-623A-16

Perfect score: 306

Sequence: 1 MFTLKSLLLFFLTINLS.....EVERKRFPVIGRLINGILGK 61

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched:

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 45 summaries

Result No.	Score	Query Match	Length	ID	Description
1	212	69.3	66	A53744	ranalexin precursor - bullfrog
2	211	69.1	71	C53578	C;Species: Rana catesbeiana (bullfrog)
3	189.5	61.9	65	S59962	C;Cross-references: UNIPROT:P39084; GB:S69903; NID:9546211; PID:9546212
4	148	48.4	80	S59961	C;Sequence_revision: 10-Sep-1999 #text_change 09-Jul-2004
5	137.5	44.9	74	A53578	C;Accession: A53744
6	120	39.2	84	A53578	R;Clark, D.P.; Durell, S.; Maloy, W.J.; Zasloff, M.
7	103	33.7	78	B54897	A;Title: Ranalexin. A novel antimicrobial peptide from bullfrog (Rana catesbeiana) skin
8	103	33.7	81	JN0462	A;Reference number: A53744
9	99.5	32.5	74	T10456	R;Keywords: disulfide bond; skin
10	99.5	32.5	198	B27784	P;1-46 Domain: dermorphin precursor amino-terminal homology <DER>
11	98	32.0	197	A27784	F;47-66/Disulfide bonds: #status experimental
12	96	31.4	227	A35514	F;60-66/Disulfide bonds: #status experimental
13	70.5	23.0	645	1	A;Molecule type: mRNA
14	69	22.9	429	F11896	A;Residues: 1-66 <CLAS>
15	69.5	22.7	213	G69850	A;Cross-references: UNIPROT:P32412; GB:X77831; NID:9488372; PID:CAA54842.1; PID:gi140579;
16	69	22.5	1512	G85090	R;Simmaco, M.; Mignogna, G.; Barra, D.; Barra, F.
17	68	22.2	313	S96692	PBES Lett., 324, 159-161, 1993
18	66	21.6	136	B23364	A;Title: Novel antimicrobial peptides from skin secretions of the European frog Rana esculenta. Molecular cloning
19	66	21.6	429	E64617	A;Reference number: A53578; PMID:94216303; PMID:8163497
20	65	21.2	185	G70425	A;Accession: C53578
21	65	21.2	188	A23364	A;Molecule type: mRNA
22	64.5	21.1	361	A96761	A;Residues: 1-71 <SIW>
23	64.5	21.1	361	AH023	A;Cross-references: UNIPROT:P32412; GB:X77831; NID:9488372; PID:CAA54842.1; PID:gi140579;
24	64	20.9	833	T22339	R;Simmaco, M.; Mignogna, G.; Barra, D.; Barra, F.
25	64	20.9	1684	2	P;23367
26	63	20.6	490	A9765	A;Title: Novel antimicrobial peptides from skin secretions of the European frog Rana esculenta. Molecular cloning
27	62.5	20.4	763	A49321	A;Reference number: S33729; PMID:93285327; PMID:8508915
28	62	20.3	84	AG2788	A;Molecule type: protein
29	62	20.3	201	A88363	A;Residues: 48-71 <SIW>

ALIGNMENTS

RESULT 1
 A53744

ranalexin precursor - bullfrog

C;Species: Rana catesbeiana (bullfrog)

C;Cross-references: UNIPROT:P39084; GB:S69903; NID:9546211; PID:9546212

C;Sequence_revision: 10-Sep-1999 #text_change 09-Jul-2004

C;Accession: A53744

R;Clark, D.P.; Durell, S.; Maloy, W.J.; Zasloff, M.

A;Title: Ranalexin. A novel antimicrobial peptide from bullfrog (Rana catesbeiana) skin

A;Reference number: A53744; PMID:94193792; PMID:8144672

A;Accession: A53744

A;Status: preliminary; not compared with conceptual translation

A;Molecule type: mRNA

A;Residues: 1-66 <CLAS>

A;Cross-references: ranalexin precursor; dermorphin precursor amino-terminal homology <DER>

C;Superfamily: ranalexin precursor; skin

C;Keywords: disulfide bond; skin

P;1-46 Domain: dermorphin precursor amino-terminal homology <DER>

F;47-66/Disulfide bonds: #status experimental

F;60-66/Disulfide bonds: #status experimental

Query Match 69.3%; Score 212; DB 1; Length 66;

Best Local Similarity 72.9%; Pred. No. 1_6e-16;

Matches 43; Conservative 9; Mismatches 7; Indels 0; Gaps 0;

Qy 1 MFTLKSLLLFFLTINLSLCBEERDADEEERRDDLERDVEREKKRFFPVIGRLINGILGK 59

Db 1 MFTLKSLLLFFLTINLSLCBEERNAEEERRNDPDERDVEREKKRFLGLKLIVPAMI 59

RESULT 2

C53578

brevinin-1EC precursor - edible frog

N;Alternate names: antimicrobial peptide brevinin 1B

C;Species: Rana esculenta (edible frog)

C;Date: 12-Apr-1995 #sequence_revision 12-Apr-1995 #text_change 09-Jul-2004

C;Accession: C53578; S33729

R;Simmaco, M.; Mignogna, G.; Barra, D.; Barra, F.

J. Biol. Chem., 269, 11956-11961, 1994

A;Title: Antimicrobial peptides from skin secretions of Rana esculenta. Molecular cloning

A;Reference number: A53578; PMID:94216303; PMID:8163497

A;Accession: C53578

A;Molecule type: mRNA

A;Residues: 1-71 <SIW>

A;Cross-references: UNIPROT:P32412; GB:X77831; NID:9488372; PID:CAA54842.1; PID:gi140579;

R;Simmaco, M.; Mignogna, G.; Barra, D.; Barra, F.

PBES Lett., 324, 159-161, 1993

A;Title: Novel antimicrobial peptides from skin secretions of the European frog Rana esculenta. Molecular cloning

A;Reference number: S33729; PMID:93285327; PMID:8508915

A;Molecule type: protein

A;Residues: 48-71 <SIW>

A;Experimental source: skin
 C;Function:
 A;Description: has antimicrobial and hemolytic activity
 C;Superfamily: ranalexin precursor; dermorphin precursor amino-terminal homology
 C;Keywords: antibacterial; disulfide bond; hemolysis; skin
 P;1-17/Domain: dermorphin precursor amino-terminal homology <DER>
 P;1-22/Domain: signal sequence #status predicted <SIG>
 F;4-71/Domain: propeptide #status predicted <PRO>
 F;4-71/Product: brevinin-1E #status experimental <MAT>
 P;65-71/Disulfide bonds: #status predicted

Query Match 69.1%; Score 211.5; DB 2; Length 71;
 Best Local Similarity 71.0%; Pred. No. 1.9e-16;
 Matches 44; Conservative 7; Mismatches 10; Indels 1; Gaps 1;

Qy 1 MFTLKKSLLLFFGTTINSLCEERDAD-EERRDLEERDVVEKRFPPVIGRLNLGIL 59
 Db 1 MFTLKKSLMLLFFGTTINSLCEERDAD-EERRDNEEVEKRFLPLLAGAANFL 60

Qy 60 GK 61
 Db 61 PK 62

RESULT 3
 S59962 antimicrobial peptide gaegurin 5 precursor - Korean frog
 C;Species: Rana rugosa (Korean frog)
 C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
 C;Accession: S59962; PC2304
 R;Park, J.M.; Lee, J.Y.; Moon, H.M.; Lee, B.J.
 Biochim. Biophys. Acta 1264, 23-25, 1995
 A;Title: Molecular cloning of cDNAs encoding precursors of frog skin antimicrobial peptide
 A;Reference number: S59961; MUID:96038814;
 A;Accession: S59962
 A;Molecule type: mRNA
 A;Residues: 1-65 <PAR>
 A;Cross-references: UNIPROT:PB0399; EMBL:U22393; NID:9733137; PID:AA64412.1; PMID:97331
 A;Experimental source: skin
 R;Park, J.M.; Jung, J.E.; Lee, B.J.
 Biochem. Biophys. Res. Commun. 205, 948-954, 1994
 A;Title: Antimicrobial peptides from the skin of a Korean frog, Rana rugosa.
 A;Reference number: PC2300; MUID:95091844;
 A;Accession: PC2304
 A;Molecule type: protein
 A;Residues: 42-57,'K',59-65 <PAR>
 A;Experimental source: skin
 C;Comment: This peptide has antimicrobial activity.
 C;Superfamily: ranalexin precursor; dermorphin precursor amino-terminal homology
 C;Keywords: antibacterial; antibiotic; antifungal; disulfide bond; skin
 P;1-41/Domain: dermorphin precursor amino-terminal homology <DER>
 P;1-22/Domain: signal sequence #status predicted <SIG>
 F;4-46/Domain: propeptide #status predicted <PRO>
 F;4-46/Product: antimicrobial peptide gaegurin 5 #status experimental <MAT>
 P;59-65/Region: rana box motif

Query Match 61.9%; Score 189.5; DB 2; Length 65;
 Best Local Similarity 67.8%; Pred. No. 4.6e-14;
 Matches 40; Conservative 8; Mismatches 6; Indels 5; Gaps 1;

Qy 1 MFTLKKSLLLFFGTTINSLCEERDAD-EERRDLEERDVVEKRFPPVIGRLNLGIL 59
 Db 1 MFTLKKSLMLLFFGTTINSLCEERDNEEVEKRFLPLLAGAANFL 54

RESULT 4
 S59961 antimicrobial peptide gaegurin 4 precursor - Korean frog
 C;Species: Rana rugosa (Korean frog)
 C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 09-Jul-2004
 C;Accession: S59961; PC2303
 R;Park, J.M.; Lee, J.Y.; Moon, H.M.; Lee, B.J.
 Biochim. Biophys. Acta 1264, 23-25, 1995

A;Title: Molecular cloning of cDNAs encoding precursors of frog skin antimicrobial peptide
 A;Reference number: S59961
 A;Accession: S59961
 A;Molecule type: mRNA
 A;Residues: 1-80 <PAR>
 A;Cross-references: UNIPROT:PB0398; EMBL:U22392; NID:9733135; PID:AA64411.1; PMID:97331
 R;Park, J.M.; Jung, J.E.; Lee, B.J.
 Biochem. Biophys. Res. Commun. 205, 948-954, 1994
 A;Title: Antimicrobial peptides from the skin of a Korean frog, Rana rugosa.
 A;Reference number: PC2300; MUID:95091844; PMID:973317
 A;Accession: PC2303
 A;Molecule type: protein
 A;Residues: 44-77,'L',79-80 <PAW>
 A;Experimental source: skin
 C;Comment: This peptide has antimicrobial activity.
 C;Superfamily: ranalexin precursor; dermorphin precursor amino-terminal homology
 C;Keywords: antibacterial; antibiotic; antifungal; disulfide bond; skin
 P;1-43/Domain: dermorphin precursor amino-terminal homology <DER>
 P;1-22/Domain: signal sequence #status predicted <SIG>
 F;23-43/Domain: propeptide #status predicted <PRO>
 F;44-80/Product: antimicrobial peptide gaegurin 4 #status experimental <MAT>
 F;74-80/Region: rana box motif

Query Match 48.4%; Score 148; DB 2; Length 80;
 Best Local Similarity 49.3%; Pred. No. 2.1e-09;
 Matches 34; Conservative 11; Mismatches 14; Indels 10; Gaps 2;

Qy 1 MFTLKKSLLLFFGTTINSLCEERDAD-EERRDLEERDVVEKRFPPVIGRLNLGIL 55
 Db 1 MFTLKKSLMLLFFGTTINSLCEERDNEEVEKRFLPLLAGAANFL 60

Qy 56 ----NGIL 59
 Db 61 VKGAAAGSVL 69

RESULT 5
 B53578 brevinin-2B precursor - edible frog
 C;Species: Rana esculenta (edible frog)
 C;Date: 12-Apr-1995 #sequence_revision 12-Apr-1995 #text_change 09-Jul-2004
 C;Accession: B53578
 R;Simmaco, M.; Mignogna, G.; Barra, D.; Bossa, F.
 J. Biol. Chem. 269, 11956-11961, 1994
 A;Title: Antimicrobial peptides from skin secretions of Rana esculenta. Molecular cloning
 A;Reference number: A53578; MUID:94216303; PMID:8163497
 A;Accession: B53578
 A;Molecule type: mRNA
 A;Residues: 1-74 <PAR>
 A;Cross-references: UNIPROT:PA0842; GB:X77832; NID:9488373; PID:CA54843.1; PMID:9140579<
 C;Species: ranalexin precursor; dermorphin precursor amino-terminal homology
 C;Keywords: antibacterial; disulfide bond; skin
 P;1-41/Domain: dermorphin precursor amino-terminal homology <DER>
 P;1-22/Domain: signal sequence #status predicted <SIG>
 F;23-41/Domain: propeptide #status predicted <PRO>
 F;44-80/Product: brevinin-2B #status predicted <MAT>
 F;68-74/Region: rana box motif

Query Match 44.9%; Score 137.5; DB 2; Length 74;
 Best Local Similarity 63.0%; Pred. No. 2.7e-08;
 Matches 29; Conservative 8; Mismatches 4; Indels 5; Gaps 1;

Qy 1 MFTLKKSLLLFFGTTINSLCEERDAD-EERRDLEERDVVEKRFPPVIGRLNLGIL 59
 Db 1 MFTLKKSLMLLFFGTTINSLCEERDNEEVEKRFLPLLAGAANFL 54

RESULT 6
 A53578 escutellin-1b precursor - edible frog
 C;Species: Rana esculenta (edible frog)
 C;Date: 12-Apr-1995 #sequence_revision 12-Apr-1995 #text_change 09-Jul-2004
 C;Accession: A53578

R; Simeone, M.; Mignogna, G.; Barra, D.; Bossa, F.
 J. Biol. Chem. 269, 1156-11961, 1994
 A; Title: Antimicrobial peptides from skin secretions of *Rana esculenta*. Molecular cloning
 A; Reference number: A55578; MUID:816349; PMID:816349; PIDN:CAA49763.1; PID:939595:
 A; Accession: A53578
 A; Molecule type: mRNA
 A; Residues: 1-44 <SIM>
 A; Cross-references: UNIPROT:P40844; GB:X77833; NID:9488374; PIDN:CAA54844.1; PID:9140579
 A; Superfamily: ranalexin precursor; dermorphin precursor amino-terminal homology
 C; Keywords: antibacterial; disulfide bond; skin
 F; 1-38/Domain: dermorphin precursor amino-terminal homology <DBR>
 F; 1-23/22/Domain: signal sequence #status predicted <SIG>
 F; 39-84/Product: esculetin-1b #status predicted <PRO>
 F; 78-84/Disulfide bonds: #status predicted
 Query Match Similarity 39.2%; Score 120; DB 2; Length 84;
 Best Local Similarity 47.5%; Pred. No. 2 6e-06;
 Matches 29; Conservative 9; Mismatches 13; Indels 10; Gaps 2;
 Qy 1 METIJKKSLLLFFPGTINISLCLCERDDEERDDEERDVEVKR--FPPVIGRIINGI 58
 Db - 1 MFTLKKPLLIVLGMSISLCLCERDDEEGSEI-----KRGIFSKLAGCKKRN 52
 Qy 59 L 59
 Db 53 L 53

RESULT 7
 B54897
 dermaseptin b I precursor - two-colored leaf frog (two-colored leaf frog)
 C; ID: 23-Mar-1995 #sequence_revision 23-Mar-1995 #text_change 09-Jul-2004
 C; Accession: B54897
 R; Amiche, M.; Ducancel, F.; Mor, A.; Boulain, J.C.; Menez, A.; Nicolas, P.
 A; Title: Precursors of vertebrate peptide antibiotics dermaseptin b and adrenoregulin have
 A; Reference number: A54897; MUID:94299491; PMID:8074751
 A; Accession: B54897
 A; Molecule type: mRNA
 A; Residues: 1-78 <AMI>
 A; Cross-references: UNIPROT:P80282; GB:X72387; NID:9505483; PIDN:CAA51080.1; PID:9505484
 C; Superfamily: dermaseptin precursor; dermorphin precursor amino-terminal homology
 C; Keywords: amidated carboxyl end; antibiotic; antifungal; skin
 F; 1-44/Domain: dermorphin precursor amino-terminal homology <DBR>
 F; 1-22/Domain: signal sequence #status predicted <SIG>
 F; 23-44/Domain: peptide #status predicted <PRO>
 F; 49-75/Product: dermaseptin b I #status experimental <NAT>
 F; 75/Modified site: amidated carboxyl end (Gln) (amide in mature form from following gly)
 Query Match Similarity 33.7%; Score 103; DB 2; Length 78;
 Best Local Similarity 56.8%; Pred. No. 0 0.00018;
 Matches 21; Conservative 8; Mismatches 6; Indels 2; Gaps 1;

Qy 1 METIJKKSLLLFFPGTINISLCLCERDDEERDVEVKR 35
 Db 1 MDIJKKSLLLFFPGTINISLCLCERDDEEKDD 37

RESULT 8
 JN0462
 adrenoregulin precursor - two-colored leaf frog
 N; Alternate names: dermaseptin b II
 C; Species: Phylomedusa bicolor (two-colored leaf frog)
 C; Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 09-Jul-2004
 C; Accession: JN0462; A54897; AA4171; S3478.8
 R; Amiche, M.; Ducancel, F.; Layeunesse, E.; Boulain, J.C.; Menez, A.; Nicolas, P.
 Biochem. Biophys. Res. Commun. 191, 983-990, 1993
 A; Title: Molecular cloning of a cDNA encoding the precursor of adrenoregulin from frog skin
 A; Reference number: JN0462; MUID:93221546; PMID:8466537
 A; Accession: JN0462

Science 238, 200-202, 1987
 A;Title: D-alanine in the frog skin peptide dermorphin is derived from L-alanine in the

A;Reference number: A94297; MUID:88017999; PMID:3659910

A;Accession: B27784

A;Molecule type: mRNA

A;Residues: 1-198 <RIC>

A;Cross-references: UNIPROT:P05421; GB:MI8030; NID:9213542; PID:NAA49452.1; PMID:9213543

C;Comment: The precursor contains tandem repeats separated by paired basic residues as 1

C;Superfamily: dermorphin precursor; dermorphin precursor amino-terminal homology

C;Keywords: amidated carboxyl end; D-amino acid; neuropeptide; skin; tandem repeat

P;1-77/Domain: dermorphin precursor amino-terminal homology <DER1>

P;26-62/Domain: dermorphin repeat <RP1>

P;48-54/Product: dermorphin #status experimental <DER1>

P;63-98/Domain: dermorphin repeat <RP2>

P;83-89/Domain: dermorphin #status experimental <DER2>

P;99-133/Domain: dermorphin repeat <RP3>

P;118-124/Product: dermorphin #status experimental <DER3>

P;134-168/Domain: dermorphin repeat <RP4>

P;153-159/Domain: dermorphin #status experimental <DER4>

P;169-198/Domain: dermorphin repeat (partial) <RP5>

P;188-194/Product: dermorphin #status experimental <DER5>

P;54/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

P;84/Modified site: D-alanine (Ala) #status experimental

P;89/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

P;119/Modified site: D-alanine (Ala) #status experimental

P;124/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

P;154/Modified site: D-alanine (Ala) #status experimental

P;159/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

P;189/Modified site: D-alanine (Ala) #status experimental

P;194/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

RESULT 12

A35514

[D-Ala(2)] deltorphin precursor - two-colored leaf frog

C;Species: Phyllomedusa bicolor (two-colored leaf frog)

C;Date: 31-Oct-1990 #sequence_change 09-Jul-2004

C;Accession: A35514

R;Richter, K.; Egger, R.; Negri, L.; Corsi, R.; Severini, C.; Kreil, G.

Proc. Natl. Acad. Sci. U.S.A. 87, 8783-8789, 1990

A;Title: cDNAs encoding [D-Ala(2)] deltorphin precursors from skin of Phyllomedusa bicolor

A;Reference number: A35514; MUID:90280411; PMID:2529251

A;Status: preliminary

A;Molecule type: mRNA

A;Residues: 1-227 <RIC>

A;Cross-references: UNIPROT:P21850; GB:M34560; NID:9213540; PMID:9213541

C;Superfamily: dermorphin precursor; dermorphin precursor amino-terminal homology

F;1-168/214/Domain: deltorphin precursor amino-terminal homology <DER1>

F;1-48/Domain: deltorphin precursor amino-terminal homology <DER2>

RESULT 13

A23723

protein disulfide-isomerase (BC 5.3.4.1) ERP72 precursor - human

N;Alternate names: endoplasmic reticulum protein Brp72

C;Species: Homo sapiens (man)

C;Accession: A23723; A36508

R;Huang, S.H.; Tomich, J.M.; Wu, H.; Jong, A.; Holcemberg, J.

J. Biol. Chem. 266, 5353, 1991

A;Reference number: A23723; MUID:91161636; PMID:2002068

A;Contents: erratum

A;Accession: A23723

A;Molecule type: mRNA

A;Residues: 1-645 <HUA>

A;Cross-references: UNIPROT:P13667; GB:J05016; NID:9181507; PMID:AAA58460.1; PID:9181508

R;Huang, S.H.; Tomich, J.M.; Wu, H.; Jong, A.; Holcemberg, J.

J. Biol. Chem. 264, 14762-14768, 1989

P;80-86/Product: dermorphin #status experimental <MAT1>

F;96-130/Domain: dermorphin repeat <RP1>

F;115-112/Domain: dermorphin #status experimental <MAT2>

F;131-165/Domain: dermorphin repeat <RP4>

F;166-197/Domain: dermorphin repeat <RP5>

F;185-191/Domain: dermorphin #status experimental <MAT4>

F;49/Modified site: D-methionine (Met) #status experimental

F;54/Modified site: amidated carboxyl end (Asp) (amide in mature form from following glyc)

C;Superfamily: dermorphin precursor; dermorphin precursor amino-terminal homology

C;Keywords: amidated carboxyl end; D-amino acid; neuropeptide; skin; tandem repeat

P;26-62/Domain: dermorphin precursor amino-terminal homology <DER1>

P;48-54/Product: dermorphin #status experimental <DER1>

P;63-98/Domain: dermorphin repeat <RP1>

P;83-89/Domain: dermorphin #status experimental <DER2>

P;99-133/Domain: dermorphin repeat <RP2>

P;118-124/Product: dermorphin #status experimental <DER3>

P;134-168/Domain: dermorphin repeat <RP4>

P;153-159/Domain: dermorphin #status experimental <DER4>

P;169-198/Domain: dermorphin repeat (partial) <RP5>

P;188-194/Product: dermorphin #status experimental <DER5>

P;54/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

P;84/Modified site: D-alanine (Ala) #status experimental

P;89/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

P;119/Modified site: D-alanine (Ala) #status experimental

P;124/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

P;154/Modified site: D-alanine (Ala) #status experimental

P;159/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

P;189/Modified site: D-alanine (Ala) #status experimental

P;194/Modified site: amidated carboxyl end (Ser) (amide in mature form from following g1)

RESULT 14

A27784

dormorphin precursor 1 - Sauvage's leaf frog

N;Contains: dormorphin precursor 1 - Sauvage's leaf frog

C;Species: Phyllomedusa sauvagei (Sauvage's leaf frog)

C;Accession: A27784; A60595

R;Richter, K.; Egger, R.; Kreil, G.

Science 238, 200-202, 1987

A;Title: D-alanine in the frog skin peptide dermorphin is derived from L-alanine in the

A;Reference number: A94297; MUID:88017999; PMID:3659910

A;Accession: B27784

A;Molecule type: mRNA

A;Residues: 1-197 <RIC>

C;Cross-references: UNIPROT:P05421; GB:MI8031; NID:9213542; PID:NAA49453.1; PMID:9213545

R;Kreil, G.; Barra, D.; Slinnaco, M.; Erspermer, V.; Erspermer, G.F.; Negri, L.; Severini,

Eur. J. Pharmacol. 162, 123-128, 1989

A;Reference number: A60595; MUID:89251774; PMID:2542051

A;Accession: A60595

A;Molecule type: protein

A;Residues: 48-54 <RIC>

C;Comment: The precursor contains tandem repeats separated by paired basic residues as 1

C;Superfamily: dermorphin precursor; dermorphin precursor amino-terminal homology <DER1>

C;Keywords: amidated carboxyl end; D-amino acid; neuropeptide; skin; tandem repeat

P;1-47/Domain: dermorphin precursor amino-terminal homology <DER1>

F;1-22/Domain: signal sequence #status predicted <SG>

P;26-60/Domain: dermorphin repeat <RP1>

P;48-54/Product: deltorphin #status experimental <DLT>

P;79-95/Domain: dermorphin repeat <RP2>

P;159-114/Domain: dermorphin precursor amino-terminal homology <DER2>

RESULT 15

Qy 1 MFTLKKSLLLFFGLTINSLCBERDDEERDDEVE-KRF 47

Db 1 MSFLKKSLLLFFGLTINSLCBERDDEERDDEVE-KRF 47

Query Match 32.5%; Score 99.5%; DB 2; Length 198;

Best Local Similarity 45.8%; Pred. No. 0.001; Indels 1; Gaps 1;

Matches 22; Conservative 10; Mismatches 15; Indels 1; Gaps 1;

Db 1 MSFLKKSLLLFFGLTINSLCBERDDEERDDEVE-KRF 47

Query Match 31.4%; Score 96%; DB 2; Length 227;

Best Local Similarity 46.9%; Pred. No. 0.0029; Indels 1; Gaps 2;

Matches 23; Conservative 11; Mismatches 13; Indels 1; Gaps 2;

Db 1 MSFLKKSLLLFFGLTINSLCBERDDEERDDEVE-KRF 47

Query Match 31.1%; Score 96%; DB 2; Length 227;

Best Local Similarity 46.9%; Pred. No. 0.0029; Indels 1; Gaps 2;

Matches 23; Conservative 11; Mismatches 13; Indels 1; Gaps 2;

Db 1 MSFLKKSLLLFFGLTINSLCBERDDEERDDEVE-KRF 47

A;Title: Human deoxyxycytidine kinase. Sequence of cDNA clones and analysis of expression
A;Reference number: A36508; MUID:89359272; PMID:2549034
A;Accession: A36508
A;Molecule type: DNA
A;Residues: 1-605; 'TKRTQLNLRVETIWSI' <H012>
A;Cross-references: GB:J05016
A;Note: this sequence has been corrected reference A23723
C;Comment: This sequence has no homology to deoxyxycytidine kinase (EC 2.7.1.74) and the P
C;Genetics:
A;Gene: GDB:ERP70; ERP72
A;Cross-references: GDB:995774
C;Superfamily: protein disulfide-isomerase; thioredoxin homolog
C;Keywords: duplication; endoplasmic reticulum; intramolecular oxidoreductase; isomerase
P;1-22/Domain: signal sequence #status predicted <SIG>
P;23-645/Product: endoplasmic reticulum protein ERP72 #status predicted <MAT>
P;7-154/Domain: thioredoxin homology <TX1>
P;185-269/Domain: thioredoxin homology <TX2>
P;533-620/Domain: thioredoxin homology <TX3>
P;642-645/Region: endoplasmic reticulum retention signal
P;91-94, 206-209, 555-558/Disulfide bonds: redox-active #status predicted

Query Match Score 23.0%; Best Local Similarity 28.2%; Pred. No. 5; Matches 20; Conservative 10; Mismatches 16; Indels 25; Gaps 2;
Qy 5 RKSLLLFFGLTINSLCE-----ERDADEERRDLEERDVKEKRF 48
Db 4 RKAFLILLGQLLAVAGAEGPDEDSSRNRAEDEEEEDDDDEELEVKF-- 61
Qy 49 PVIGRLINGIL 59
Db 62 -----NGVL 65

RESULT 14

F71896 hypothetical protein jhp0718 - Helicobacter pylori (strain J99)

C;Species: Helicobacter pylori
A;Variety: strain J99
C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C;Accession: F71896
R;Alm, R.A.; Ling, L.S.L.; Moir, D.T.; King, B.L.; Brown, E.D.; Doig, P.C.; Smith, D.R.;
Ives, C.; Gibson, R.; Merberg, D.; Mills, S.D.; Jiang, Q.; Taylor, D.E.; Vovis, G.F.;
Nature, 397, 176-180, 1999
A;Title: Genomic sequence comparison of two unrelated isolates of the human gastric path
A;Reference number: A71800; MUID:99120557; PMID:9923682
A;Accession: F71896
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-429 <ARN>
A;Cross-references: UNIPROT:Q9ZL62; GB:AE001503; GB:AE001439; NID:94155275; PIDN:AA00630
A;Experimental source: strain J99
C;Genetics:
A;Gens: jhp0718

Query Match Score 22.9%; Best Local Similarity 41.3%; Pred. No. 3.8; Matches 6; Mismatches 21; Indels 0; Gaps 0;
Qy 10 LLFFGLTINSLCEEERDDEERRDLEERDVKEKRFPVIGRL 55
Db 130 LLAYLNTRNDENIQVFDSDSSESPKLBETXKIEKEKPFPIALL 175

RESULT 15

G69850 hypothetical protein YjhA - Bacillus subtilis

C;Species: Bacillus subtilis
C;Accession: G69850
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
R;Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Bertero, M.; Choi, E.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Chodat, P.; Emmerson, S.D.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, C.;

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OM protein - protein search, using SW model

Run on: March 30, 2005, 17:30:01 ; Search time 140 Seconds
 (without alignments)
 144,265 Million cell updates/sec

Title: US-10-719-623A-16

Perfect score: 306

Sequence: 1 MFTLRLSLLFLFGTINLS.....EVEKRRFFPVIGRLNLGK 61

Scoring table: BLOSUM62

Gapext 10.0 , Gapext 0.5

Searched: 14074023 seqs, 331100923 residues

Total number of hits satisfying chosen parameters: 1407402

Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 45 summaries

Database : Published Applications AA:*

1: /cgm2_6/ptodata/2/pubpa/ptodata/2/pubpa/US07_PUBCOMB.pep:*

2: /cgm2_6/ptodata/2/pubpa/ptodata/2/pubpa/US07_PUBCOMB.pep:*

3: /cgm2_6/ptodata/2/pubpa/ptodata/2/pubpa/US06_PUBCOMB.pep:*

4: /cgm2_6/ptodata/2/pubpa/ptodata/2/pubpa/US07_NEW_PUB.PEP:*

5: /cgm2_6/ptodata/2/pubpa/ptodata/2/pubpa/US07_PUBCOMB.pep:*

6: /cgm2_6/ptodata/2/pubpa/ptodata/2/PTCUS_PUBCOMB.pep:*

7: /cgm2_6/ptodata/2/pubpa/ptodata/2/US08__NEW_PUB.PEP:*

8: /cgm2_6/ptodata/2/pubpa/ptodata/2/US08_PUBCOMB.pep:*

9: /cgm2_6/ptodata/2/pubpa/ptodata/2/US09A_PUBCOMB.pep:*

10: /cgm2_6/ptodata/2/pubpa/ptodata/2/US09B_PUBCOMB.pep:*

11: /cgm2_6/ptodata/2/pubpa/ptodata/2/US09C_PUBCOMB.pep:*

12: /cgm2_6/ptodata/2/pubpa/ptodata/2/US09__NEW_PUB.PEP:*

13: /cgm2_6/ptodata/2/pubpa/ptodata/2/US10A_PUBCOMB.pep:*

14: /cgm2_6/ptodata/2/pubpa/ptodata/2/US10B_PUBCOMB.pep:*

15: /cgm2_6/ptodata/2/pubpa/ptodata/2/US10C_PUBCOMB.pep:*

16: /cgm2_6/ptodata/2/pubpa/ptodata/2/US10D_PUBCOMB.pep:*

17: /cgm2_6/ptodata/2/pubpa/ptodata/2/US10_E_PUBCOMB.pep:*

18: /cgm2_6/ptodata/2/pubpa/ptodata/2/US11__NEW_PUB.PEP:*

19: /cgm2_6/ptodata/2/pubpa/ptodata/2/US60__NEW_PUB.PEP:*

20: /cgm2_6/ptodata/2/pubpa/ptodata/2/US60__PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

ALIGNMENTS

RESULT 1
 US-10-719-623-16 ; Sequence 16, Application US/10719623
 ; Publication No. US/0040073977A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Mbra and Kay
 ; TITLE OF INVENTION: Transgenic Plants that are Resistant to a Broad Spectrum of Pathogens
 ; TITLE OF INVENTION: of Pathogens
 ; FILE REFERENCE: 673243
 ; CURRENT APPLICATION NUMBER: US/10/719_623
 ; CURRENT FILING DATE: 2003-11-20
 ; PRIORITY APPLICATION NUMBER: 60/125,072
 ; PRIORITY FILING DATE: 1999-03-17
 ; PRIORITY APPLICATION NUMBER: PCT/CA00/00288
 ; PRIORITY FILING DATE: 2000-03-16
 ; PRIORITY APPLICATION NUMBER: 09/936,885
 ; PRIORITY FILING DATE: 2001-09-17
 ; NUMBER OF SEQ ID NOS: 41
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 16
 ; LENGTH: 61
 ; TYPE: PRT
 ; ORGANISM: Rana temporaria
 US-10-719-623-16

SUMMARIES

Result No.	Score	Query Length	DB ID	Description
1	306	100.0	61	US-10-719-623-16
2	103	33.7	78	US-10-719-623-16
3	95	31.0	24	US-10-719-623-16
4	70.5	23.0	1039	US-10-719-623-16
5	70	22.9	429	US-10-719-623-16
6	70	22.9	430	US-10-719-623-16
7	67.5	22.1	1189	US-10-719-623-17
8	66	21.6	13	US-10-719-623-17
9	66	21.6	193	US-10-719-623-17
10	65.5	21.4	1192	US-10-719-623-17
11	65.5	21.4	1192	US-10-719-623-17
12	64	20.9	1684	US-10-719-623-17
13	63	20.6	59	US-10-719-623-17

Query Match Score 306; DB 15; Length 61;
 Sequence 16, Appli
 Sequence 2, Appli
 Sequence 8, Appli
 Sequence 1675, A
 Sequence 6289, Ap
 Sequence 6290, Ap
 Sequence 45818, A
 Sequence 17, Appli
 Sequence 10903, A
 Sequence 57178, A
 Sequence 811, App
 Sequence 32735, A

Qy 1 MFTLRLSLLFLFGTINLSCEERDADEERDDLEERDVKEPPVIGRLNLG 60
 Db 1 MFTLRLSLLFLFGTINLSCEERDADEERDDLEERDVKEPPVIGRLNLG 60

RESULT 2
 US-10-719-623-2
 Sequence 2, Application US/10719623
 Publication No. US20040073977A1
 GENERAL INFORMATION:
 APPLICANT: Miera and Kay
 TITLE OF INVENTION: Transgenic Plants that are Resistant to a Broad Spectrum of Pathogens
 FILE REFERENCE: 673243
 CURRENT APPLICATION NUMBER: US/10/719,623
 CURRENT FILING DATE: 2003-11-20
 PRIOR APPLICATION NUMBER: 60/125,072
 PRIOR FILING DATE: 1999-03-17
 PRIOR APPLICATION NUMBER: PCT/CA00/00288
 PRIOR FILING DATE: 2000-03-16
 PRIOR APPLICATION NUMBER: 09/936,885
 PRIOR FILING DATE: 2001-09-17
 NUMBER OF SEQ ID NOS: 41
 SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 2
 LENGTH: 78
 TYPE: PRT
 ORGANISM: Phyllomedusa bicolor
 us-10-719-623-2

Query Match Score 103; DB 15; Length 78;
 Best Local Similarity 56.8%; Pred. No. 0.00011;
 Matches 21; Conservative 8; Mismatches 6; Indels 2; Gaps 1;

1 MFTLKKSLLFFLGTTINSLCBEERKENEDDEKQDD 35
 1 MDILKKSLFLVLFGLVSLCICEERKENEDDEKQDD 37

RESULT 3
 US-10-421-635-8
 Sequence 8, Application US/10421635
 Publication No. US2004004847A1
 GENERAL INFORMATION:
 APPLICANT: Miera, Santosh et al.
 TITLE OF INVENTION: Transgenic Plants Exhibiting Resistance to a Spectrum of Pathogens
 FILE REFERENCE: 5568A2
 CURRENT APPLICATION NUMBER: US/10/421,635
 CURRENT FILING DATE: 2003-04-21
 PRIOR APPLICATION NUMBER: US/09/616,110
 PRIOR FILING DATE: 2000-07-14
 PRIOR APPLICATION NUMBER: 60/165,249
 PRIOR FILING DATE: 1999-11-12
 NUMBER OF SEQ ID NOS: 11
 SOFTWARE: PatentIn Ver. 2.1
 SEQ ID NO 8
 LENGTH: 24
 TYPE: PRT
 ORGANISM: Rana temporaria
 us-10-421-635-8

Query Match Score 95; DB 15; Length 24;
 Best Local Similarity 75.0%; Pred. No. 0.00025;
 Matches 18; Conservative 5; Mismatches 1; Indels 0; Gaps 0;

23 EERDADEBRRDLEERVEVER 46
 1 EBERRNAEERREDEPDERQVER 24

RESULT 4
 US-10-369-433-16475
 Sequence 16475, Application US/10369493
 Publication No. US20030233675A1
 GENERAL INFORMATION:

APPLICANT: Cao, Yongwei
 APPLICANT: Hinkle, Gregory J.
 APPLICANT: Slater, Steven C.
 APPLICANT: Goldman, Barry S.
 APPLICANT: Chen, Xianfeng
 TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF PLANTS WITH IMPROVED PROPERTIES
 FILE REFERENCE: 38-1015205B
 CURRENT APPLICATION NUMBER: US/10/369,493
 CURRENT FILING DATE: 2003-02-28
 PRIOR APPLICATION NUMBER: US 60/360,039
 PRIOR FILING DATE: 2002-02-21
 NUMBER OF SEQ ID NOS: 47374
 SEQ ID NO 16475
 LENGTH: 1039
 TYPE: PRT
 ORGANISM: Bacillus thuringiensis
 FEATURE:
 NAME/KEY: unsure
 LOCATION: (1) ..(1039)
 OTHER INFORMATION: unsure at all Xaa locations
 US-10-369-493-16475

Query Match Score 70.5%; DB 15; Length 1039;
 Best Local Similarity 41.2%; Pred. No. 16;
 Matches 21; Conservative 6; Mismatches 7; Indels 17; Gaps 3;

Qy 14 LGTINNSLCEERDADEE----ERDDE-----ERDVVEKRF 47
 Db 837 LGTVNLGAIDEYERYERHTTLEEQDDLEBAKATHQLITMEDMKCRF 887

RESULT 5
 US-10-335-977-6289
 Sequence 6289, Application US/10335977
 Publication No. US20040052739A1
 GENERAL INFORMATION:
 APPLICANT: DOUGLAS SMITH et al
 TITLE OF INVENTION: NUCLEAR ACID AND AMINO ACID SEQUENCES RELATING TO HELICOBACTER PYLORI FOR DIAGNOSTICS AND THERAPEUTICS
 CORRESPONDENCE ADDRESS:
 ADDRESS: LAHIVE & COCKPFIELD
 STREET: 28 State Street
 CITY: Boston
 STATE: Massachusetts
 COUNTY: USA
 ZIP: 02109-1875
 COMPUTER READABLE FORM:
 MEDIUM TYPE: CD-ROM ISO9660
 COMPUTER: IBM PC Compatible
 OPERATING SYSTEM: Windows NT 4.0
 SOFTWARE: UNIX
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/10/335,977
 FILING DATE: 30-Dec-2002
 PRIORITY APPLICATION DATA:
 APPLICATION NUMBER: 08/993,002
 FILING DATE: 17-DEC-1997
 ATTORNEY/AGENT INFORMATION:
 NAME: Mandragoras, Amy B.
 NAME: Mandragoras, Amy B.
 REGISTRATION NUMBER: 36,207
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (617)227-7400
 TELEFAX: (617)742-4214
 INFORMATION FOR SEQ ID NO: 6289:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 429 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein

HYPOTHETICAL: YES
 ORIGINAL SOURCE:
 ORGANISM: Helicobacter pylori

FEATURE:
 NAME/KEY: misc feature
 LOCATION: (B) LOCATION 1..429
 SEQUENCE DESCRIPTION: SEQ ID NO: 6289:

US-10-335-977-6289

Query Match 22.9%; Score 70; DB 15; Length 429;
 Best Local Similarity 41.3%; Pred. No. 6.6;
 Matches 19; Conservative 6; Mismatches 21; Indels 0; Gaps 0;

Db 10 LLFFLGTTNLSCEERDAEERRDDEERDVKEKPFVIGRL 55
 Db 130 LLAYLNTNNDFNIVQVFSDERSPEKLETYKEIEKEKFPTIALL 175.

RESULT 6
 US-10-335-977-6290
 Sequence 6290. Application US/10335977
 Publication No. US200403279941

GENERAL INFORMATION:
 APPLICANT: DOUGLAS SMITH et al.
 TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES
 RELATED TO HELICOBACTER PYLORI FOR
 DIAGNOSTICS AND THERAPEUTICS

NUMBER OF SEQUENCES: 10031

CORRESPONDENCE ADDRESS:
 ADDRESSEE: LAHIVE & COCKFIELD
 STREET: 28 State Street
 CITY: Boston
 STATE: Massachusetts
 COUNTRY: USA
 ZIP: 02109-1675

COMPUTER READABLE FORM:
 MEDIUM TYPE: CD/ROM ISO9660
 COMPUTER: IBM PC Compatible
 OPERATING SYSTEM: Windows NT 4.0
 SOFTWARE: UNIX

CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/10/335,977
 PRIORITY FILING DATE: 30-Dec-2002

PRIOR APPLICATION DATA:
 APPLICATION NUMBER: 08/993, 002
 FILING DATE: 17-Dec-1997

ATTORNEY/AGENT INFORMATION:
 NAME: Mandragouras, Amy E.
 REGISTRATION NUMBER: 36, 207
 REFERENCE/DOCKET NUMBER: GTN-018

TELECOMMUNICATION INFORMATION:
 TELEPHONE: (617)227-7400
 TELEFAX: (617)742-4214

INFORMATION FOR SEQ ID NO: 6290:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 430 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein
 HYPOTHETICAL: YES
 ORIGINAL SOURCE:
 ORGANISM: Helicobacter pylori

FEATURE:
 NAME/KEY: misc feature
 LOCATION: (B) LOCATION 1..430
 SEQUENCE DESCRIPTION: SEQ ID NO: 6290:

US-10-335-977-6290

Query Match 22.9%; Score 70; DB 15; Length 430;
 Best Local Similarity 41.3%; Pred. No. 6.6;
 Matches 19; Conservative 6; Mismatches 21; Indels 0; Gaps 0;

Db 10 LLFFLGTTNLSCEERDAEERRDDEERDVKEKPFVIGRL 55

RESULT 7
 US-10-282-122A-45818
 Sequence 45818, Application US/10282122A
 Publication No. US2004029125A1

GENERAL INFORMATION:
 APPLICANT: Wang, Liangsu
 APPLICANT: Zamudio, Carlos
 APPLICANT: Malone, Cherry L
 APPLICANT: Haselbeck, Robert
 APPLICANT: Ohlsen, Kari
 APPLICANT: Zyskind, Judith
 APPLICANT: Wall, Daniel
 APPLICANT: Carr, Grant
 APPLICANT: Yamamoto, Robert
 APPLICANT: Xu, Hui
 APPLICANT: Forsyth, R.

TITLE OF INVENTION: Identification of Essential Genes in Microorganisms

FILE REFERENCE: ELITRA_034A

CURRENT APPLICATION NUMBER: US/10/282,122A

CURRENT FILING DATE: 2003-02-20

PRIOR APPLICATION NUMBER: 60/191,078

PRIOR FILING DATE: 2000-03-21

PRIOR APPLICATION NUMBER: 60/206,848

PRIOR FILING DATE: 2000-05-23

PRIOR APPLICATION NUMBER: 60/207,727

PRIOR FILING DATE: 2000-05-25

PRIOR APPLICATION NUMBER: 60/230,335

PRIOR FILING DATE: 2000-09-16

PRIOR APPLICATION NUMBER: 60/230,347

PRIOR FILING DATE: 2000-09-09

PRIOR APPLICATION NUMBER: 60/242,578

PRIOR FILING DATE: 2000-10-23

PRIOR APPLICATION NUMBER: 60/253,625

PRIOR FILING DATE: 2000-11-27

PRIOR APPLICATION NUMBER: 60/257,931

PRIOR FILING DATE: 2000-12-12

PRIOR APPLICATION NUMBER: 60/267,636

PRIOR FILING DATE: 2001-02-09

PRIOR APPLICATION NUMBER: 60/269,308

PRIOR FILING DATE: 2001-02-16

Remaining Prior Application data removed - See File Wrapper or PALM.

NUMBER OF SEQ ID NOS: 78614

SOFTWARE: PatentIn version 3.1

SEQ ID NO: 45818

LENGTH: 1189

TYPE: PRT

ORGANISM: Bacillus anthracis

US-10-282-122A-45818

Query Match 22.1%; Score 67.5; DB 15; Length 1189;

Best Local Similarity 39.2%; Pred. No. 42; Matches 20; Conservative 7; Mismatches 7; Indels 17; Gaps 3;

Qy 14 LGTINISLCEB-ERDADE-----ERRDLE-----ERDVVEKRF 47

Db 984 LGTVNNGAIDREYERVAERHTPLEQQDLEBAKTTHQQLITEMDEENKRF 1034

RESULT 8
 US-10-282-122A-45818

Sequence 17, Application US/10719623
 Publication No. US20040073977A1

GENERAL INFORMATION:
 APPLICANT: Misra and Kay
 TITLE OF INVENTION: Transgenic Plants that are Resistant to a Broad Spectrum of Pathogens

FILE REFERENCE: 673243

CURRENT APPLICATION NUMBER: US/10/719,623

RESULT 9
 CURRENT FILING DATE: 2003-11-20
 PRIOR FILING DATE: 1999-03-17
 PRIOR APPLICATION NUMBER: PCT/CA00/00288
 PRIOR FILING DATE: 2000-03-16
 PRIOR APPLICATION NUMBER: 09/936,885
 PRIOR FILING DATE: 2001-09-17
 NUMBER OF SEQ ID NOS: 41
 SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 17
 LENGTH: 13
 TYPE: PRT
 ORGANISM: Rana temporaria
 US-10-719-623-17

Query Match 21.6%; Score 66; DB 15; Length 13;
 Best Local Similarity 100.0%; Pred. No. 0.34%; Indels 0; Gaps 0;
 Matches 13; Conservative 0; Mismatches 0;
 SEQ ID NO: 10903
 LENGTH: 1192

Qy 47 FFPVIGRNLGIL 59
 Db 1 FFPVIGRNLGIL 13

US-09-815-242-10903
 TYPE: PRT
 ORGANISM: Enterococcus faecalis

RESULT 10
 CURRENT FILING DATE: 2001-03-21
 PRIOR FILING DATE: 2000-03-21
 PRIOR APPLICATION NUMBER: 60/191,078
 PRIOR FILING DATE: 2000-05-23
 PRIOR APPLICATION NUMBER: 60/207,727
 PRIOR FILING DATE: 2000-05-26
 PRIOR APPLICATION NUMBER: 60/242,578
 PRIOR FILING DATE: 2000-10-23
 PRIOR APPLICATION NUMBER: 60/253,625
 PRIOR FILING DATE: 2000-11-27
 PRIOR APPLICATION NUMBER: 60/257,931
 PRIOR FILING DATE: 2000-12-22
 PRIOR APPLICATION NUMBER: 60/269,308
 PRIOR FILING DATE: 2001-02-16
 NUMBER OF SEQ ID NOS: 14110
 SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO: 10903
 LENGTH: 1192

Qy 14 LGTINNSLCBEERDAE-----ERRDDL-----
 Db 984 LGPVNLSAIEFQDVERHQFLVSORDDLNAAKEQLPFTMDMQTKERKFKEVFAI 1041

RESULT 11
 CURRENT FILING DATE: 2001-03-21
 PRIOR FILING DATE: 2000-05-23
 PRIOR APPLICATION NUMBER: 60/191,078
 NUMBER OF SEQ ID NOS: 285684
 SEQ ID NO 245431
 LENGTH: 193
 TYPE: PRT
 ORGANISM: Glycine max
 FEATURE: OTHER INFORMATION: Clone ID: PAT_MRT3847_63656C.1.pep
 US-10-424-599-245431

Query Match 21.6%; Score 66; DB 15; Length 193;
 Best Local Similarity 35.4%; Pred. No. 7.8%; Indels 0; Gaps 0;
 Matches 17; Conservative 7; Mismatches 24;

Qy 13 FLGTINNSLCBEERDAEERRDLEERDVVEKRFVIGRNLGIL 60
 Db 49 YASAIVSSSEEVKGILTQGLRLALEKKFVPTVKARLKGICG 96

US-09-815-242-10903
 TYPE: PRT
 ORGANISM: Identification of Essential Genes in Microorganisms

RESULT 12
 CURRENT FILING DATE: 2001-03-21
 PRIOR FILING DATE: 2000-05-23
 PRIOR APPLICATION NUMBER: US/10282122A
 GENERAL INFORMATION:
 APPLICANT: Wang, Liangsu
 APPLICANT: Zamudio, Carlos
 APPLICANT: Malone, Cheryl
 APPLICANT: Haselbeck, Robert
 APPLICANT: Ohlsen, Kari
 APPLICANT: Zyskind, Judith
 APPLICANT: Wall, Daniel
 APPLICANT: Trawick, John
 APPLICANT: Carr, Grant
 APPLICANT: Yamamoto, Robert
 APPLICANT: Forbryt, R.
 APPLICANT: Xu, H.
 TITLE OF INVENTION: Identification of Essential Genes in Microorganisms
 FILE REFERENCE: ELITRA.034A

Qy 14 LGTINNSLCBEERDAEERRDLEERDVVEKRFVIGRNLGIL 60
 Db 984 LGPVNLSAIEFQDVERHQFLVSORDDLNAAKEQLPFTMDMQTKERKFKEVFAI 1041

RESULT 13
 CURRENT FILING DATE: 2003-02-20
 PRIOR FILING DATE: 2000-03-21
 PRIOR APPLICATION NUMBER: 60/191,078
 PRIOR FILING DATE: 2000-05-23
 PRIOR APPLICATION NUMBER: 60/206,848
 PRIOR FILING DATE: 2000-05-23
 PRIOR APPLICATION NUMBER: 60/207,727
 PRIOR FILING DATE: 2000-05-26
 PRIOR APPLICATION NUMBER: 60/230,335
 PRIOR FILING DATE: 2000-09-06
 PRIOR APPLICATION NUMBER: 60/230,347
 PRIOR FILING DATE: 2000-09-09
 PRIOR APPLICATION NUMBER: 60/242,578
 PRIOR FILING DATE: 2000-10-23
 PRIOR APPLICATION NUMBER: 60/253,625
 PRIOR FILING DATE: 2000-11-27
 PRIOR APPLICATION NUMBER: 60/257,931
 PRIOR FILING DATE: 2000-12-22
 PRIOR APPLICATION NUMBER: 60/267,636
 PRIOR FILING DATE: 2001-02-09
 PRIOR APPLICATION NUMBER: 60/269,308
 PRIOR FILING DATE: 2001-02-16

RESULT 14
 CURRENT FILING DATE: 2001-02-16
 PRIOR FILING DATE: 2000-05-23
 PRIOR APPLICATION NUMBER: US/09/815,242

; Remaining Prior Application data removed - See File Wrapper or PALM.

; NUMBER OF SEQ ID NOS: 76614 ; OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 3.7

; SOFTWARE: PatentIn version 3.1 ; OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 7.5

; SEQ ID NO: 51718 ; SEQ ID NO: 51718

; LENGTH: 1192 ; LENGTH: 1192

; TYPE: PRT ; TYPE: PRT

; ORGANISM: Enterococcus faecalis ; ORGANISM: Enterococcus faecalis

US-10-282-12A-51718 ; SEQ ID NO: 32735

Qy 14 LGTINLSLGEERDADE-----ERRDDI-----EERDVEVERKRFPVIGI 54 ; Query Match Score 65.5; DB 15; Length 1192;

Best Local Similarity 34.5%; Pred. No. 74%; Mismatches 6; Indels 17; Gaps 2;

Matches 20; Conservative 6; Mismatches 15; Indels 17; Gaps 2;

Db 984 LGPNLNSAIEQDVDERHQLVSRQDILNAAKEQLPTEMDENDQEVKERFREVFAI 1041 ; Sequence 531, Application US/09925302

RESULT 14 ; Sequence 531, Application US/09925302

US-10-408-765A-811 ; Sequence 811, Application US/10408765A

; Publication No. US20040101874A1 ; Publication No. US20040101874A1

; GENERAL INFORMATION: ; GENERAL INFORMATION:

; APPLICANT: Ghosh, Soumitra S. ; APPLICANT: Ghosh, Soumitra S.

; Fahy, Boin D. ; APPLICANT: Fahy, Boin D.

; Zhang, Bing ; APPLICANT: Zhang, Bing

; Gibson, Bradford W. ; APPLICANT: Gibson, Bradford W.

; Taylor, Steven W. ; APPLICANT: Taylor, Steven W.

; Glenn, Gary M. ; APPLICANT: Glenn, Gary M.

; Warnock, Dale E. ; APPLICANT: Warnock, Dale E.

; TITLE OF INVENTION: TARGETS FOR THERAPEUTIC INTERVENTION ; TITLE OF INVENTION: IDENTIFIED IN THE MITOCHONDRIAL PROTEOME

; FILE REFERENCE: 660088 465 ; FILE REFERENCE: 660088 465

; CURRENT APPLICATION NUMBER: US/10/408,765A ; CURRENT APPLICATION NUMBER: US/10/408,765A

; CURRENT FILING DATE: 2003-04-04 ; CURRENT FILING DATE: 2003-04-04

; NUMBER OF SEQ ID NOS: 3077 ; NUMBER OF SEQ ID NOS: 3077

; SOFTWARE: FastSEQ For Windows Version 4.0 ; SOFTWARE: FastSEQ For Windows Version 4.0

; SEQ ID NO: 811 ; SEQ ID NO: 811

; LENGTH: 11684 ; LENGTH: 11684

; TYPE: PRT ; TYPE: PRT

; ORGANISM: Homo sapiens ; ORGANISM: Homo sapiens

US-10-408-765A-811 ; SEQ ID NO: 32735

Qy 23 EERDADDEERRDDLEERDVEVERK 46 ; Query Match Score 64; DB 16; Length 1684;

Best Local Similarity 54.2%; Pred. No. 1.7e+02; Mismatches 4; Indels 0; Gaps 0;

Matches 13; Conservative 4; Mismatches 7; Indels 0; Gaps 0;

Db 113 EEREDDEERKDSDBERQKKKKR 136 ; Sequence 531, Application US/09925302

RESULT 15 ; Sequence 531, Application US/09925302

US-09-925-302-531 ; Sequence 531, Application US/09925302

; Publication No. US20030064072A9 ; Publication No. US20030064072A9

; GENERAL INFORMATION: ; GENERAL INFORMATION:

; APPLICANT: Rosen, et al. ; APPLICANT: Rosen, et al.

; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies ; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies

; FILE REFERENCE: PA104 ; FILE REFERENCE: PA104

; CURRENT APPLICATION NUMBER: US/09/925,302 ; CURRENT APPLICATION NUMBER: US/09/925,302

; CURRENT FILING DATE: 2001-08-10 ; CURRENT FILING DATE: 2001-08-10

; PRIOR APPLICATION NUMBER: PCT/US00/05918 ; PRIOR APPLICATION NUMBER: PCT/US00/05918

; PRIOR FILING DATE: 2000-03-08 ; PRIOR FILING DATE: 2000-03-08

; PRIOR APPLICATION NUMBER: 60/1124,270 ; PRIOR APPLICATION NUMBER: 60/1124,270

; PRIOR FILING DATE: 1999-03-12 ; PRIOR FILING DATE: 1999-03-12

; NUMBER OF SEQ ID NOS: 896 ; NUMBER OF SEQ ID NOS: 896

; SOFTWARE: PatentIn Ver. 2.0 ; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO: 531 ; SEQ ID NO: 531

; LENGTH: 705 ; LENGTH: 705

; TYPE: PRT ; TYPE: PRT

; ORGANISM: Homo sapiens ; ORGANISM: Homo sapiens

US-09-925-302-531 ; Sequence 531, Application US/09925302

Qy 23 EERDADDEERRDDLEERDVEVERKRFPPVIG 52 ; Query Match Score 62.5; DB 10; Length 705;

Best Local Similarity 51.9%; Pred. No. 91; Mismatches 3; Indels 1; Gaps 1;

Db 25 EEEDEDEEEEEEED-EEDDYDVKSEFP 251 ; Sequence 531, Application US/09925302

RESULT 16 ; Sequence 531, Application US/09925302

US-09-925-302-531 ; Sequence 531, Application US/09925302

; Publication No. US20030064072A9 ; Publication No. US20030064072A9

; GENERAL INFORMATION: ; GENERAL INFORMATION:

; APPLICANT: Rosen, et al. ; APPLICANT: Rosen, et al.

; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies ; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies

; FILE REFERENCE: PA104 ; FILE REFERENCE: PA104

; CURRENT APPLICATION NUMBER: US/09/925,302 ; CURRENT APPLICATION NUMBER: US/09/925,302

; CURRENT FILING DATE: 2001-08-10 ; CURRENT FILING DATE: 2001-08-10

; PRIOR APPLICATION NUMBER: PCT/US00/05918 ; PRIOR APPLICATION NUMBER: PCT/US00/05918

; PRIOR FILING DATE: 2000-03-08 ; PRIOR FILING DATE: 2000-03-08

; PRIOR APPLICATION NUMBER: 60/1124,270 ; PRIOR APPLICATION NUMBER: 60/1124,270

; PRIOR FILING DATE: 1999-03-12 ; PRIOR FILING DATE: 1999-03-12

; NUMBER OF SEQ ID NOS: 896 ; NUMBER OF SEQ ID NOS: 896

; SOFTWARE: PatentIn Ver. 2.0 ; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO: 531 ; SEQ ID NO: 531

; LENGTH: 705 ; LENGTH: 705

; TYPE: PRT ; TYPE: PRT

; ORGANISM: Homo sapiens ; ORGANISM: Homo sapiens

US-09-925-302-531 ; Sequence 531, Application US/09925302

Qy 23 EERDADDEERRDDLEERDVEVERKRFPPVIG 49 ; Query Match Score 62.5; DB 10; Length 705;

Best Local Similarity 51.9%; Pred. No. 91; Mismatches 3; Indels 1; Gaps 1;

Db 226 EEEDEDEEEEEEED-EEDDYDVKSEFP 251 ; Sequence 531, Application US/09925302

RESULT 17 ; Sequence 531, Application US/09925302

US-09-925-302-531 ; Sequence 531, Application US/09925302

; Publication No. US20030064072A9 ; Publication No. US20030064072A9

; GENERAL INFORMATION: ; GENERAL INFORMATION:

; APPLICANT: Penn, Sharron G. ; APPLICANT: Penn, Sharron G.

; Rank, David R. ; Rank, David R.

; Hanzel, David K. ; Hanzel, David K.

; TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEAR ACID PROBES USEFUL FOR GENE EXPRESSION ANALYSIS TWO ; TITLE OF INVENTION: EXPRESSION ANALYSIS TWO

; FILE REFERENCE: AEGOMICA-X-2 ; FILE REFERENCE: AEGOMICA-X-2

; CURRENT APPLICATION NUMBER: US/10/029,386 ; CURRENT APPLICATION NUMBER: US/10/029,386

; CURRENT FILING DATE: 2001-12-20 ; CURRENT FILING DATE: 2001-12-20

; NUMBER OF SEQ ID NOS: 34288 ; NUMBER OF SEQ ID NOS: 34288

; SOFTWARE: Ammax Sequence Listing Engine vers. 1.1 ; SOFTWARE: Ammax Sequence Listing Engine vers. 1.1

; SEQ ID NO: 32735 ; SEQ ID NO: 32735

; LENGTH: 59 ; LENGTH: 59

; TYPE: PRT ; TYPE: PRT

; ORGANISM: Homo sapiens ; ORGANISM: Homo sapiens

; FEATURE: ; FEATURE:

; OTHER INFORMATION: MAP TO AC004493.1 ; OTHER INFORMATION: MAP TO AC004493.1

Search completed: March 30, 2005, 17:42:51
Job time : 141 secs

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2	306	100.0	61	4	US-09-319-730-19		Sequence 16, Appli
3	245	80.1	61	3	US-09-319-730-15		Sequence 15, Appli
4	219.5	71.7	58	3	US-09-319-730-17		Sequence 17, Appli
5	103	33.7	78	4	US-09-319-730-17		Sequence 2, Appli
6	70.5	23.0	645	4	US-09-319-730-17		Sequence 920, Appli
7	66	21.6	13	3	US-09-319-730-17		Sequence 7, Appli
8	66	21.6	13	4	US-09-319-730-17		Sequence 17, Appli
9	65.5	21.4	1208	4	US-09-319-730-17		Sequence 5756, Appli
10	62.5	20.4	166	4	US-09-319-730-17		Sequence 5648, Appli
11	62.5	20.4	706	1	US-09-319-730-17		Sequence 29, Appli
12	62.5	20.4	706	2	US-09-319-730-17		Sequence 4, Appli
13	62.5	20.4	706	2	US-09-319-730-17		Sequence 4, Appli
14	62.5	20.4	763	1	US-09-319-730-17		Sequence 13, Appli
15	62.5	20.4	763	1	US-09-319-730-17		Sequence 13, Appli
16	62.5	20.4	763	2	US-09-319-730-17		Sequence 13, Appli
17	62.5	20.4	763	4	US-09-319-730-17		Sequence 1272, Appli
18	62.5	20.4	763	5	US-09-319-730-17		Sequence 13, Appli
19	62	20.3	932	4	US-09-319-730-17		Sequence 19128, A
20	61	19.9	95	3	US-09-319-730-17		Sequence 5627, Ap
21	60.5	19.8	103	3	US-09-319-730-17		Sequence 4292, Ap
22	60	19.6	605	3	US-09-319-730-17		Sequence 2, Appli
23	60	19.6	605	3	US-09-319-730-17		Sequence 2, Appli
24	60	19.6	3457	2	US-09-319-730-17		Sequence 4, Appli
25	59.5	19.4	180	4	US-09-319-730-17		Sequence 35, Appli
26	59.5	19.4	361	4	US-09-319-730-17		Sequence 4446, Appli
27	59.5	19.4	462	4	US-09-319-730-17		Sequence 5241, Appli

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OM protein - protein search, using SW model

Run on: March 30, 2005, 17:21:25 ; Search time 42 Seconds
 (without alignments)
 108.419 Million cell updates/sec

Title: US-10-719-623A-16

Perfect score: 306

Sequence: 1 MFTLKSLLFFGTTNLS.....EVEKRFPPVIGRLNGILGK 61

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Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
 Maximum Match 100%
 Listing first 45 summaries

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 * Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

%

RESULT 1
 US-09-319-730-19

; Sequence 19, Application US/09319730
 ; Patent No. 6310176

; GENERAL INFORMATION:
 / APPLICANT: BARRA, Donatella
 / TITLE OF INVENTION: ANTIMICROBIAL ACTIVE POLYPEPTIDES
 / FILE REFERENCE: 003300-574
 / CURRENT APPLICATION NUMBER: US/09/319,730
 / CURRENT FILING DATE: 1999-08-24
 / PRIOR APPLICATION NUMBER: PCT/SE97/02075
 / PRIOR FILING DATE: 1997-12-12
 / PRIOR APPLICATION NUMBER: SE 9604593-5
 / NUMBER OF SEQ ID NOS: 19
 / SOFTWARE: PatentIn Ver. 2.0
 / SEQ ID NO 19
 / LENGTH: 61
 / TYPE: PRT
 / ORGANISM: Rana temporaria

US-09-319-730-19

Query Match 100 %; Score 306; DB 3; Length 61;
 Best Local Similarity 100 %; Pred. No. 7.8e-31;
 Matches 61; Conservative 0; Mismatches 0; Indexes 0; Gaps 0;

Qy 1 METLKHSLLLIIFFLGLTINLSCLCEERDADERRDDLEERDVKEFPVIGRLNGILG 60
 Db 1 MFTLKSLLLIFFLGLTINLSCLCEERDADERRDDLEERDVKEFPVIGRLNGILG 60

RESULT 2
 US-09-319-730-19

; Sequence 16, Application US/09936885A
 ; Patent No. 6335868

; GENERAL INFORMATION:
 / APPLICANT: Misra and Kay
 / TITLE OF INVENTION: Transgenic Plants that are Resistant to a Broad Spectrum of Pathogens
 / FILE REFERENCE: 60993
 / CURRENT APPLICATION NUMBER: US/09/936,885A
 / CURRENT FILING DATE: 2001-09-17
 / PRIOR APPLICATION NUMBER: 60/125,072
 / PRIOR FILING DATE: 1999-03-17
 / PRIOR APPLICATION NUMBER: PCT/CA00/00288

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; PRIOR FILING DATE: 2000-03-16
; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 16
; LENGTH: 61
; TYPE: PRT
; ORGANISM: Rana temporaria
US-09-936-885A-16

Query Match Similarity 100.0%; Score 306; DB 4; Length 61;
Best Local Similarity 100.0%; Pred. No. 7.8e-31;
Matches 61; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 MFTLKSLLLFGLGTINLSLCEERDAEERRDLEERDVEKRFFPVIGRLNLG 60
Db 1 MFTLKSLLLFGLGTINLSLCEERDAEERRDLEERDVEKRFFPVIGRLNLG 60
Qy 61 K 61
Db 61 K 61

RESULT 3
US-09-319-730-15
; Sequence 15, Application US/09319730
; Patent No. 6310176
; GENERAL INFORMATION:
; APPLICANT: BARRA, Donatella
; TITLE OF INVENTION: ANTIMICROBIAL ACTIVE POLYPEPTIDES
; FILE REFERENCE: 00330-574
; CURRENT APPLICATION NUMBER: US/09/319,730
; CURRENT FILING DATE: 1999-08-24
; PRIOR APPLICATION NUMBER: PCT/SE97/02075
; PRIOR FILING DATE: 1997-12-12
; PRIOR APPLICATION NUMBER: SE 9604593-5
; PRIOR FILING DATE: 1996-12-13
; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
; LENGTH: 61
; TYPE: PRT
; ORGANISM: Rana temporaria
US-09-319-730-15

Query Match Similarity 80.1%; Score 245; DB 3; Length 61;
Best Local Similarity 75.4%; Pred. No. 2.8e-23;
Matches 46; Conservative 9; Mismatches 6; Indels 0; Gaps 0;
Qy 1 MFTLKSLLLFGLGTINLSLCEERDAEERRDLEERDVEKRFFPVIGRLNLG 60
Db 1 MFTLKSLLLFGLGTINLSLCEERDAEERRDLEERDVEKRFFPVIGRLNLG 60
Qy 61 K 61
Db 61 K 61

RESULT 4
US-09-319-730-17
; Sequence 17, Application US/09319730
; Patent No. 6310176
; GENERAL INFORMATION:
; APPLICANT: BARRA, Donatella
; TITLE OF INVENTION: ANTIMICROBIAL ACTIVE POLYPEPTIDES
; FILE REFERENCE: 00330-574
; CURRENT APPLICATION NUMBER: US/09/319,730
; CURRENT FILING DATE: 1999-08-24
; PRIOR APPLICATION NUMBER: PCT/SE97/02075
; PRIOR FILING DATE: 1997-12-12
; NUMBER OF SEQ ID NOS: 1387
; SOFTWARE: CuraPatentFormatter Version 0.9
; SEQ ID NO 920
; LENGTH: 645
; TYPE: PRT

; NUMBER OF SEQ ID NOS: 19
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 17
; LENGTH: 58
; TYPE: PRT
; ORGANISM: Rana temporaria
US-09-319-730-17

Query Match Similarity 71.7%; Score 219.5; DB 3; Length 58;
Best Local Similarity 73.8%; Pred. No. 3.7e-20;
Matches 45; Conservative 7; Mismatches 6; Indels 3; Gaps 1;
Qy 1 MFTLKSLLLFGLGTINLSLCEERDAEERRDLEERDVEKRFFPVIGRLNLG 60
Db 1 MFTLKSLLLFGLGTINSLCEERDAEERRDLEERDVEKRFFPVIGRLNLG 57
Qy 61 K 61
Db 58 K 58

RESULT 5
US-09-936-885A-2
; Sequence 2, Application US/09936885A
; Patent No. 6833868
; GENERAL INFORMATION:
; APPLICANT: Misra and Kay
; TITLE OF INVENTION: Transgenic Plants that are Resistant to a Broad Spectrum of Pathogens
; FILE REFERENCE: 60993
; CURRENT APPLICATION NUMBER: US/09/936, 885A
; CURRENT FILING DATE: 2001-09-17
; PRIOR APPLICATION NUMBER: 60/125, 072
; PRIOR FILING DATE: 1999-03-17
; PRIOR APPLICATION NUMBER: PCT/CA00/00288
; PRIOR FILING DATE: 2000-03-16
; NUMBER OF SEQ ID NOS: 42
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 78
; TYPE: PRT
; ORGANISM: Phylomedusa bicolor
US-09-936-885A-2

Query Match Similarity 33.7%; Score 103; DB 4; Length 78;
Best Local Similarity 56.8%; Pred. No. 1.4e-05;
Matches 21; Conservative 8; Mismatches 6; Indels 2; Gaps 1;
Qy 1 MFTLKSLLLFGLGTINLSLCEERDAEERRDLEERDVEKRFFPVIGRLNLG 35
Db 1 MDLTKSFLVFLGLVSICSEERKENEDEEKDD 37

RESULT 6
US-09-538-032-920
; Sequence 920, Application US/09538092
; Patent No. 6753314
; GENERAL INFORMATION:
; APPLICANT: Giot, Loic
; TITLE OF INVENTION: Protein-Protein Complexes and Method of Using Same
; FILE REFERENCE: 15566-542
; CURRENT APPLICATION NUMBER: US/09/538, 092
; CURRENT FILING DATE: 2000-03-29
; PRIOR APPLICATION NUMBER: 60/127, 352
; PRIOR FILING DATE: 1999-04-01
; PRIOR APPLICATION NUMBER: 60/178, 965
; PRIOR FILING DATE: 2000-02-01
; NUMBER OF SEQ ID NOS: 1387
; SOFTWARE: CuraPatentFormatter Version 0.9
; SEQ ID NO 920
; LENGTH: 645
; TYPE: PRT

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ORGANISM: Homo sapiens
 FEATURE: misc_feature
 LOCATION: (0)..(0)
 OTHER INFORMATION: Polypeptide Accession Number P13667
 US-09-538-092-920

Query Match Similarity 23.0%; Score 70.5; DB 4; Length 645;
 Best Local Similarity 28.2%; Pred. No. 1.5; Mismatches 10; Indels 25; Gaps 2;
 Matches 20; Conservative 10; Mismatches 16; Indels 25; Gaps 2;

Qy 5 KKSLLLLFFLGTINLSLCB-----BERDADEERDDELERDVEKEKRF 48
 Db 4 RKAFLLLLGVLGVALLAVAGAEGPDEDSSNRENAAEDEEEDDEEDELEVKEE- 61

Qy 49 FPPVIGRNLIL 59
 Db 62 -----NCVL 65

RESULT 7
 US-09-319-730-7
 / Sequence 7, Application US/09119730
 / Patent No. 6310176
 / GENERAL INFORMATION:
 / APPLICANT: BARRA, Donatella
 / APPLICANT: SIMMACO, Maurizio
 / TITLE OF INVENTION: ANTIMICROBIAL ACTIVE POLYPEPTIDES
 / FILE REFERENCE: 003300-574
 / CURRENT APPLICATION NUMBER: US/09/319,730
 / PRIOR APPLICATION NUMBER: PCT/SE97/02075
 / PRIOR FILING DATE: 1997-12-12
 / PRIOR APPLICATION NUMBER: SE 9604593-5
 / PRIOR FILING DATE: 1996-12-13
 / NUMBER OF SEQ ID NOS: 19
 / SOFTWARE: PatentIn Ver. 2.0
 / SEQ ID NO 7
 / LENGTH: 13
 / ORGANISM: Rana temporaria
 / TYPE: PRT
 / US-09-319-730-7

Query Match Similarity 21.6%; Score 66; DB 3; Length 13;
 Best Local Similarity 100.0%; Pred. No. 0.071; Mismatches 0; Indels 0; Gaps 0;
 Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 47 FPPVIGRNLIL 59
 Db 1 FPPVIGRNLIL 13

RESULT 8
 US-09-936-885A-17
 / Sequence 17, Application US/09936885A
 / Patent No. 6835868
 / GENERAL INFORMATION:
 / APPLICANT: Wier and Kay
 / TITLE OF INVENTION: Trigenic Plants that are Resistant to a Broad Spectrum
 / TITLE OF INVENTION: Of Pathogens
 / FILE REFERENCE: 60993
 / CURRENT APPLICATION NUMBER: US/09/936,885A
 / CURRENT FILING DATE: 2001-09-17
 / PRIOR APPLICATION NUMBER: 60/125,072
 / PRIOR FILING DATE: 1999-03-17
 / PRIOR APPLICATION NUMBER: PCT/CA00/00288
 / PRIOR FILING DATE: 2000-03-16
 / NUMBER OF SEQ ID NOS: 42
 / SOFTWARE: PatentIn Ver. 2.0
 / SEQ ID NO 17
 / LENGTH: 13
 / TYPE: PRT
 / ORGANISM: Rana temporaria

US-09-936-885A-17
 / Query Match Similarity 21.6%; Score 66; DB 4; Length 13;
 / Best Local Similarity 100.0%; Pred. No. 0.071; Mismatches 0; Indels 0; Gaps 0;
 / Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 47 FPPVIGRNLIL 59
 Db 1 FPPVIGRNLIL 13

RESULT 9
 US-09-134-000C-5756
 / Sequence 5756, Application US/09134000C
 / Patent No. 6617156
 / GENERAL INFORMATION:
 / APPLICANT: Lynn Doucette-Stamm et al
 / TITLE OF INVENTION: NUCLEAR ACID AND AMINO ACID SEQUENCES RELATING TO ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
 / FILE REFERENCE: 012796-032
 / CURRENT APPLICATION NUMBER: US/09/134,000C
 / CURRENT FILING DATE: 1998-08-13
 / PRIOR APPLICATION NUMBER: US 60/055,778
 / PRIOR FILING DATE: 1997-08-15
 / NUMBER OF SEQ ID NOS: 6812
 / SOFTWARE: PatentIn version 3.1
 / SEQ ID NO 5756
 / LENGTH: 1208
 / TYPE: PRT
 / ORGANISM: Enterococcus faecalis
 / US-09-134-000C-5756

Query Match Similarity 21.4%; Score 65.5; DB 4; Length 1208;
 Best Local Similarity 34.5%; Pred. No. 1.3; Mismatches 6; Indels 17; Gaps 2;

Qy 14 LGTINSLCEEEERDDE-----EBRDVEVEKRFPPVIGR 54
 Db 1000 LGPVNLSAEQEVDERHQFLVSQRDDILLAKEQLPETMDMDEQYEVKERPKVEPAI 1057

RESULT 10
 US-09-513-999C-5648
 / Sequence 5648, Application US/09513999C
 / Patent No. 6783961
 / GENERAL INFORMATION:
 / APPLICANT: Dumas Milne Edwards, J.B.
 / APPLICANT: Duclert, A.
 / APPLICANT: Giordano, J.Y.
 / TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
 / FILE REFERENCE: 59, US1, REG
 / CURRENT APPLICATION NUMBER: US/09/513,999C
 / CURRENT FILING DATE: 2000-02-24
 / PRIOR APPLICATION NUMBER: US 60/122,487
 / PRIOR FILING DATE: 1999-02-26
 / NUMBER OF SEQ ID NOS: 36681
 / Patent No. 6783961
 / SEQ ID NO 5648
 / LENGTH: 166
 / TYPE: PRT
 / ORGANISM: Homo sapiens
 / FEATURES:
 / NAME/KEY: UNSURE
 / LOCATION: 92
 / OTHER INFORMATION: Xaa=Abp or Glu
 / FEATURE:
 / NAME/KEY: UNSURE
 / LOCATION: 94
 / OTHER INFORMATION: Xaa=Abp or Glu or Gly
 / FEATURE:
 / NAME/KEY: UNSURE
 / LOCATION: 126

OTHER INFORMATION: Xaa=His or Arg
US-09-513-399C-3648

Query Match Similarity 20.4%; Score 62.5; DB 4; Length 166;
Best Local Similarity 51.9%; Pred. No. 3.; 3; Mismatches 9; Indels 1; Gaps 1;

Matches 14; Conservative

Qy 23 EEEERDAEERDDEERDVEVERKRFPP 49
Db 38 EEEEDDEEEEEE-EEEDDVVKSEFP 63

RESULT 11
US-08-339-152A-29

Sequence 29, Application US/08339152A
Patent No. 564726

GENERAL INFORMATION:
APPLICANT: Tanzi, Rudolph E.
APPLICANT: Kovacs, Dora M.

TITLE OF INVENTION: Methods For Modulating Transcription (APP) Promoter
NUMBER OF SEQUENCES: 33

ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STREET: 1100 New York Ave., NW, Suite 600
CITY: Washington
STATE: DC
COUNTRY: USA
ZIP: 20005

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/007,999B
FILING DATE: 21-JAN-1993
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 07/872,642
FILING DATE: 20-APR-1992
PRIORITY APPLICATION DATA:
APPLICATION NUMBER: US 07/930,022
FILING DATE: 17-AUG-1992
ATTORNEY/AGENT INFORMATION:
NAME: Townsend, G. Kevin
REGISTRATION NUMBER: 34,033
REFERENCE/DOCKET NUMBER: 0609-3520002/JAGG/GKT

TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)371-2571
TELEFAX: (202)371-2540

INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 706 amino acids
TYPE: amino acid
TOPOLOGY: linear

US-08-007-999B-4

Query Match Similarity 20.4%; Score 62.5%; DB 2; Length 706;
Best Local Similarity 51.9%; Pred. No. 17; 3; Mismatches 9; Indels 1; Gaps 1;

Matches 14; Conservative

Qy 23 EEEERDAEERDDEERDVEVERKRFPP 49
Db 217 EEEEDDEEEEEE-EEEDDVVKSEFP 242

RESULT 13
US-08-689-276A-4

Sequence 4, Application US/08689276A
Patent No. 5811991

GENERAL INFORMATION:
APPLICANT: Wasco, Wilma
APPLICANT: Bupp, Keith
APPLICANT: Magendantz, Margaret
APPLICANT: Tanni, Rudolph
APPLICANT: Solomon, Frank

TITLE OF INVENTION: AMYLOID PRECURSOR-LIKE PROTEIN AND USES
NUMBER OF SEQUENCES: 19

CORRESPONDENCE ADDRESS:
ADDRESSEE: Sterne, Kessler, Goldstein & Fox P.L.L.C.
STREET: 1100 New York Ave., NW
CITY: Washington
STATE: DC
COUNTRY: USA
ZIP: 20005

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/689,276A

; LENGTH: 763 amino acids
 ; TYPE: amino acid
 ; TOPOLOGY: linear
 ; MOLECULE TYPE: protein
 US-08-155-331-13

Query Match 20.4%; Score 62.5; DB 1; Length 763;
 Best Local Similarity 51.9%; Pred. No. 18;
 Matches 14; Conservative 3; Mismatches 9; Indels 1; Gaps 1;

Qy 23 EEEERRDADEERRDLEERDVVEKRFPP 49
 Db 216 EEEEDDEEEEEEED-EEEDYDVKSEFP 241

RESULT 15
 US-08-424-022-13

; Sequence 13, Application US/08424022
 ; Patent No. 5671146
 ; GENERAL INFORMATION:
 ; APPLICANT: Foster, Donald C
 ; ATTORNEY/AGENT INFORMATION:
 ; APPLICANT: Spricher, Cindy
 ; ADDRESS: ZymoGenetics, Inc.
 ; STREET: 4225 Roosevelt Way, N.E.
 ; CITY: Seattle
 ; STATE: WA
 ; COUNTRY: USA
 ; ZIP: 98105

COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/424/022
 FILING DATE:
 NAME: Parker, Gary E
 REGISTRATION NUMBER: 31-684
 CLASSIFICATION: 514
 PRIORITY APPLICATION DATA:
 APPLICATION NUMBER: US 07/985,692
 FILING DATE: 02-DEC-1992
 ATTORNEY/AGENT INFORMATION:
 NAME: Parker, Gary E
 REGISTRATION NUMBER: 92-21C2
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: 206-547-8080 ext 322
 TELEFAX: 206-548-2329
 INFORMATION FOR SEQ ID NO: 13:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 763 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 MOLECULE TYPE: protein

US-08-424-022-13

Query Match 20.4%; Score 62.5; DB 1; Length 763;
 Best Local Similarity 51.9%; Pred. No. 18;
 Matches 14; Conservative 3; Mismatches 9; Indels 1; Gaps 1;

Qy 23 EEEERRDADEERRDLEERDVVEKRFPP 49
 Db 216 EEEEDDEEEEEEED-EEEDYDVKSEFP 241

Search completed: March 30, 2005, 17:31:32
 Job time : 43 secs

INFORMATION FOR SEQ ID NO: 13:
 SEQUENCE CHARACTERISTICS:

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XX	SQ Sequence 61 AA;	Qy 61 K 61	Db 61 K 61
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Best Local Similarity 100.0%; Pred. No. 3.2e-30;			
Matches 61; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
RESULT 3			
AAW51841			
ID AAW51841 standard; protein; 61 AA.			
XX			
AAW51841;			
AC AC			
DT 26-OCT-1998 (first entry)			
XX			
Rana temporaria temporin B peptide.			
XX			
KW Temporin B; anti-microbial property; anti-fungal property.			
XX			
Rana temporaria.			
OS OS			
XX			
Key FH Location/Qualifiers			
PT Peptide 1..22			
FT /note= "Signal peptide"			
DE DT			
XX			
A temporin G precursor polypeptide.			
DE Dermaseptin; antibacterial; fungal growth; temporin; transgenic plant; cationic peptide; pathogen resistance.			
XX			
KW KW			
claimed under claim 1 on page 20 in the specification"			
59			
/note= "C-terminal amide present in the mature peptide"			
XX			
WO9825961-A1.			
XX			
PN PN			
XX			
PD 18-JUN-1998.			
XX			
PD 12-DEC-1997;			
XX			
PP 97WO-SE002075.			
XX			
PP 13-DEC-1996;			
XX			
PR 96SE-0004593.			
XX			
(SBLV-) SBL VACCIN AB.			
PA PA			
XX			
Barra D, Simmaco M;			
PI PI			
XX			
WPI; 1998-362423/31.			
XX			
DR N-PSDB; AA0V07447.			
XX			
Peptides from the skin of the frog Rana temporaria - useful as anti-microbial or anti-fungal compositions.			
PT PT			
XS XS			
Claim 1; Page 18, 20; 27pp; English.			
XX			
The present sequence represents the Rana temporaria temporin B anti-microbial peptide encoded by the temporin B cDNA which was isolated from a R. temporaria skin cDNA library. The invention claims for other R. temporaria derived peptides which are claimed to be useful in medicaments for anti-microbial and anti-fungal use			
CC CC			
Sequence 61 AA;			
XX			
WPI Match 80.1%; Score 245; DB 2; Length 61;			
Best Local Similarity 75.4%; Pred. No. 1.1e-22;			
Mismatches 9; Indels 6;			
PS PS			
CC CC			
DR 1 MFTLKSLLLFFGLTINSLCEERDADERRDDLEERDVVEKRFPIGRILNLG 60			
N-PSDB; AAA75750.			
XX			
Transgenic plants resistant to broad spectrum of pathogens useful for producing biologically active cationic peptides, comprises nucleic acid molecule encoding temporin and/or dermaseptin peptides.			
XX			
PS Disclosure; Page 49-50; 58pp; English.			
XX			
CC The present sequence represents a temporin precursor polypeptide. The specification also describes dermaseptin polypeptides. Temporin and dermaseptin have antibacterial activity. Dermaseptin also inhibits fungal growth. Cationic peptides derived from temporins and dermaseptins are used to produce transgenic plants. The transgenic plants are useful for producing biologically active cationic peptides such as temporins and dermaseptins in large quantities. The peptide confers broad spectrum pathogen resistance including enhanced resistance to both fungal and bacterial pathogens in the transgenic plants. The transgenic plants may be used in conventional agricultural applications such as food crops, medical and other applications			
CC CC			
XX			
Sequence 61 AA;			
Query Match 100.0%; Score 306; DB 3; Length 61;			
Best Local Similarity 100.0%; Pred. No. 3.2e-30;			
Matches 61; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
RESULT 4			
AAB18737			
ID AAB18737 standard; protein; 61 AA.			
XX			
AC AC			
DT 22-JAN-2001 (First entry)			
XX			
DE DE			
A temporin G precursor polypeptide.			
XX			
DE D			
Dermaseptin; antibacterial; fungal growth; temporin; transgenic plant; cationic peptide; pathogen resistance.			
XX			
KW KW			
claimed under claim 1 on page 20 in the specification"			
59			
/note= "C-terminal amide present in the mature peptide"			
XX			
WO20055337-A1.			
XX			
PN PN			
XX			
PD 21-SEP-2000.			
XX			
PP 16-MAR-2000; 2000WO-CA000288.			
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PR 17-MAR-1999; 99US-0125072P.			
XX			
PA PA			
XX			
(UYVI-) UNIV VICTORIA INNOVATION & DEV CORP.			
PA PA			
XX			
PI Misra S, Kay WD;			
XX			
DR DR; 200-647077/62.			
N-PSDB; AAA75750.			
XX			
Transgenic plants resistant to broad spectrum of pathogens useful for producing biologically active cationic peptides, comprises nucleic acid molecule encoding temporin and/or dermaseptin peptides.			
XX			
PS Disclosure; Page 49-50; 58pp; English.			
XX			
CC The present sequence represents a temporin precursor polypeptide. The specification also describes dermaseptin polypeptides. Temporin and dermaseptin have antibacterial activity. Dermaseptin also inhibits fungal growth. Cationic peptides derived from temporins and dermaseptins are used to produce transgenic plants. The transgenic plants are useful for producing biologically active cationic peptides such as temporins and dermaseptins in large quantities. The peptide confers broad spectrum pathogen resistance including enhanced resistance to both fungal and bacterial pathogens in the transgenic plants. The transgenic plants may be used in conventional agricultural applications such as food crops, medical and other applications			
CC CC			
XX			
Sequence 61 AA;			
Query Match 100.0%; Score 306; DB 3; Length 61;			
Best Local Similarity 100.0%; Pred. No. 3.2e-30;			
Matches 61; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
RESULT 5			
AAB18737			
ID AAB18737 standard; protein; 61 AA.			
XX			
AC AC			
DT 26-OCT-1998 (first entry)			
XX			
DE DE			
Rana temporaria temporin B peptide.			
XX			
KW Temporin B; anti-microbial property; anti-fungal property.			
XX			
Rana temporaria.			
OS OS			
XX			
Key FH Location/Qualifiers			
PT Peptide 1..22			
FT /note= "Signal peptide"			
DE DE			
XX			
A temporin G precursor polypeptide.			
XX			
DE D			
Dermaseptin; antibacterial; fungal growth; temporin; transgenic plant; cationic peptide; pathogen resistance.			
XX			
KW KW			
claimed under claim 1 on page 20 in the specification"			
59			
/note= "C-terminal amide present in the mature peptide"			
XX			
WO9825961-A1.			
XX			
PN PN			
XX			
PD 18-JUN-1998.			
XX			
PD 12-DEC-1997;			
XX			
PP 97WO-SE002075.			
XX			
PR 13-DEC-1996;			
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96SE-0004593.			
XX			
(SBLV-) SBL VACCIN AB.			
PA PA			
XX			
Barra D, Simmaco M;			
PI PI			
XX			
WPI; 1998-362423/31.			
XX			
DR N-PSDB; AA0V07447.			
XX			
Peptides from the skin of the frog Rana temporaria - useful as anti-microbial or anti-fungal compositions.			
PT PT			
XS XS			
Claim 1; Page 18, 20; 27pp; English.			
XX			
The present sequence represents the Rana temporaria temporin B anti-microbial peptide encoded by the temporin B cDNA which was isolated from a R. temporaria skin cDNA library. The invention claims for other R. temporaria derived peptides which are claimed to be useful in medicaments for anti-microbial and anti-fungal use			
CC CC			
Sequence 61 AA;			
Query Match 80.1%; Score 245; DB 2; Length 61;			
Best Local Similarity 75.4%; Pred. No. 1.1e-22;			
Mismatches 9; Indels 6;			
PS PS			
CC CC			
DR 1 MFTLKSLLLFFGLTINSLCEERDADERRDDLEERDVVEKRFPIGRILNLG 60			
N-PSDB; AA0V07447.			
XX			
Transgenic plants resistant to broad spectrum of pathogens useful for producing biologically active cationic peptides, comprises nucleic acid molecule encoding temporin and/or dermaseptin peptides.			
XX			
PS Disclosure; Page 49-50; 58pp; English.			
XX			
CC The present sequence represents a temporin precursor polypeptide. The specification also describes dermaseptin polypeptides. Temporin and dermaseptin have antibacterial activity. Dermaseptin also inhibits fungal growth. Cationic peptides derived from temporins and dermaseptins are used to produce transgenic plants. The transgenic plants are useful for producing biologically active cationic peptides such as temporins and dermaseptins in large quantities. The peptide confers broad spectrum pathogen resistance including enhanced resistance to both fungal and bacterial pathogens in the transgenic plants. The transgenic plants may be used in conventional agricultural applications such as food crops, medical and other applications			
CC CC			
XX			
Sequence 61 AA;			
Query Match 100.0%; Score 306; DB 3; Length 61;			
Best Local Similarity 100.0%; Pred. No. 3.2e-30;			
Matches 61; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
RESULT 6			
AAB18737			
ID AAB18737 standard; protein; 61 AA.			
XX			
AC AC			
DT 26-OCT-1998 (first entry)			
XX			
DE DE			
Rana temporaria temporin B peptide.			
XX			
KW Temporin B; anti-microbial property; anti-fungal property.			
XX			
Rana temporaria.			
OS OS			
XX			
Key FH Location/Qualifiers			
PT Peptide 1..22			
FT /note= "Signal peptide"			
DE DE			
XX			
A temporin G precursor polypeptide.			
XX			
DE D			
Dermaseptin; antibacterial; fungal growth; temporin; transgenic plant; cationic peptide; pathogen resistance.			
XX			
KW KW			
claimed under claim 1 on page 20 in the specification"			
59			
/note= "C-terminal amide present in the mature peptide"			
XX			
WO9825961-A1.			
XX			
PN PN			
XX			
PD 18-JUN-1998.			
XX			
PD 12-DEC-1997;			
XX			
PP 97WO-SE002075.			
XX			
PR 13-DEC-1996;			
XX			
96SE-0004593.			
XX			
(SBLV-) SBL VACCIN AB.			
PA PA			
XX			
Barra D, Simmaco M;			
PI PI			
XX			
WPI; 1998-362423/31.			
XX			
DR N-PSDB; AA0V07447.			
XX			
Peptides from the skin of the frog Rana temporaria - useful as anti-microbial or anti-fungal compositions.			
PT PT			
XS XS			
Claim 1; Page 18, 20; 27pp; English.			
XX			
The present sequence represents the Rana temporaria temporin B anti-microbial peptide encoded by the temporin B cDNA which was isolated from a R. temporaria skin cDNA library. The invention claims for other R. temporaria derived peptides which are claimed to be useful in medicaments for anti-microbial and anti-fungal use			
CC CC			
Sequence 61 AA;			
Query Match 80.1%; Score 245; DB 2; Length 61;			
Best Local Similarity 75.4%; Pred. No. 1.1e-22;			
Mismatches 9; Indels 6;			
PS PS			
CC CC			
DR 1 MFTLKSLLLFFGLTINSLCEERDADERRDDLEERDVVEKRFPIGRILNLG 60			
N-PSDB; AA0V07447.			
XX			
Transgenic plants resistant to broad spectrum of pathogens useful for producing biologically active cationic peptides, comprises nucleic acid molecule encoding temporin and/or dermaseptin peptides.			
XX			
PS Disclosure; Page 49-50; 58pp; English.			
XX			
CC The present sequence represents a temporin precursor polypeptide. The specification also describes dermaseptin polypeptides. Temporin and dermaseptin have antibacterial activity. Dermaseptin also inhibits fungal growth. Cationic peptides derived from temporins and dermaseptins are used to produce transgenic plants. The transgenic plants are useful for producing biologically active cationic peptides such as temporins and dermaseptins in large quantities. The peptide confers broad spectrum pathogen resistance including enhanced resistance to both fungal and bacterial pathogens in the transgenic plants. The transgenic plants may be used in conventional agricultural applications such as food crops, medical and other applications			
CC CC			
XX			
Sequence 61 AA;			
Query Match 100.0%; Score 306; DB 3; Length 61;			
Best Local Similarity 100.0%; Pred. No. 3.2e-30;			
Matches 61; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
RESULT 7			
AAB18737			
ID AAB18737 standard; protein; 61 AA.			
XX			
AC AC			
DT 26-OCT-1998 (first entry)			
XX			
DE DE			
Rana temporaria temporin B peptide.			
XX			
KW Temporin B; anti-microbial property; anti-fungal property.			
XX			
Rana temporaria.			
OS OS			
XX			
Key FH Location/Qualifiers			
PT Peptide 1..22			
FT /note= "Signal peptide"			
DE DE			
XX			
A temporin G precursor polypeptide.			
XX			
DE D			
Dermaseptin; antibacterial; fungal growth; temporin; transgenic plant; cationic peptide; pathogen resistance.			
XX			
KW KW			
claimed under claim 1 on page 20 in the specification"			
59			
/note= "C-terminal amide present in the mature peptide"			
XX			
WO9825961-A1.			
XX			
PN PN			
XX			
PD 18-JUN-1998.			
XX			
PD 12-DEC-1997;			
XX			
PP 97WO-SE002075.			
XX			
PR 13-DEC-1996;			
XX			
96SE-0004593.			
XX			
(SBLV-) SBL VACCIN AB.			
PA PA			
XX			
Barra D, Simmaco M;			
PI PI			
XX			
WPI; 1998-362423/31.			
XX			
DR N-PSDB; AA0V07447.			
XX			
Peptides from the skin of the frog Rana temporaria - useful as anti-microbial or anti-fungal compositions.			
PT PT			
XS XS			
Claim 1; Page 18, 20; 27pp; English.			
XX			
The present sequence represents the Rana temporaria temporin B anti-microbial peptide encoded by the temporin B cDNA which was isolated from a R. temporaria skin cDNA library. The invention claims for other R. temporaria derived peptides which are claimed to be useful in medicaments for anti-microbial and anti-fungal use			
CC CC			
Sequence 61 AA;			
Query Match 80.1%; Score 245; DB 2; Length 61;			
Best Local Similarity 75			

XX AAW51842;
 XX 26-OCT-1998 (first entry)
 XX Rana temporaria temporin H peptide.
 XX Temporin H; anti-microbial property; anti-fungal property.
 XX OS Rana temporaria.
 XX Key Location/Qualifiers
 FH 1..22 /note= "Signal peptide"
 FT Protein 47..56 /note= "Mature temporin H peptide; this peptide is claimed under claim 1 on page 20 in the specification"
 FT Modified-site 56 /note= "C-terminal amide present in the mature peptide WO9825961-A1."
 PN PD 18-JUN-1998.
 XX PP 12-DEC-1997; 97WO-SB002075.
 PR 13-DEC-1996; 96SE-00004593.
 XX PA (SBLV-) SBL VACCIN AB.
 XX PI Barra D, Simmaco M;
 XX DR WPI; 1998-362423/31.
 DR N-PSDB; AAU07448.
 XX PT Peptides from the skin of the frog Rana temporaria - useful as antimicrobial or anti-fungal compositions.
 XX PS Claim 1; Page 18, 20; 27pp; English.
 XX The present sequence represents the Rana temporaria temporin H antimicrobial peptide encoded by the temporin H cDNA which was isolated from a R. temporaria skin cDNA library. The invention claims for other R. temporaria derived peptides which are claimed to be useful in medications for anti-microbial and anti-fungal use
 XX SQ Sequence 58 AA;

Query Match 71.7%; Score 219.5; DB 2; Length 58;
 Best Local Similarity 73.8%; Pred. No. 1.6e-19; Indels 3; Gaps 1;
 Matches 45; Conservative 7; Mismatches 6;
 XX AC AAG62384 standard; peptide; 24 AA.
 XX AAG62384;
 Qy 1 MFTLKKSLLLPFLGTTNLSLCEEEERDADDEERDDLERDVEVEKRFPPVIGRLNGILG 60
 Db 1 MFTLKKSLLLPFLGTTNLSLCEEEERDADDEERDDLERDVEVEKRFPPVIGRLNGILG 57
 Qy 61 K 61
 Db 58 K 58

RESULT 5
 AAB18724 ID AAB18724 standard; protein; 78 AA.
 XX AC AAB18724;
 XX DT 22-JAN-2001 (first entry)
 XX DB A dermaseptin precursor polypeptide.
 XX KW Dermaseptin; antibacterial; fungal growth; temporin; transgenic plant; cationic peptide; pathogen resistance.

XX OS Phyllomedusa bicolor.
 XX PN WO200053337-A1.
 XX PD 21-SEP-2000.
 XX PF 16-MAR-2000; 2000WO-CA000288.
 XX PR 17-MAR-1999; 99US-0125072P.
 XX PA (UYV1-) UNIV VICTORIA INNOVATION & DEV CORP.
 XX PI Misra S, Kay ND;
 XX DR N-PSDB; AAA75749.
 XX PT Transgenic plants resistant to broad spectrum of pathogens useful for producing biologically active cationic peptides, comprises nucleic acid molecule encoding temporin and/or Dermaseptin Peptides.
 XX Disclosure; Page 47; 58pp; English.
 XX The present sequence represents a dermaseptin precursor polypeptide. The precursor is processed to produce two mature forms, dermaseptin b (AAB18725) and dermaseptin B (AAB18726). Dermaseptin has antibacterial activity, and inhibits fungal growth. Cationic peptides derived from temporins and dermaseptins are used to produce transgenic plants. The transgenic plants are useful for producing biologically active cationic peptides such as temporins and dermaseptins in large quantities. The peptide confers broad spectrum pathogen resistance including enhanced resistance to both fungal and bacterial pathogens in the transgenic plants. The transgenic plants may be used in conventional agricultural applications such as food crops, medical and other applications
 XX PS Sequence 78 AA;
 XX Query Match 33.7%; Score 103; DB 3; Length 78;
 CC Best Local Similarity 56.3%; Pred. No. 6e-05;
 CC Matches 21; Conservative 8; Mismatches 6; Indels 2; Gaps 1;
 CC Qy 1 MFTLKSKLLPFLGTTNLSLCEEEERDADDEERDD 35
 Db 1 MDILKSKLLPFLGTLGLVLSICEEEERENEDEEKQDD 37

RESULT 6
 AAG62384 ID AAG62384 standard; peptide; 24 AA.
 XX AC AAG62384;
 XX DT 30-AUG-2001 (first entry)
 DE Pro-region of temporin G peptide.
 XX KW Transgenic plant; cationic peptide; cecropin; melittin; CBMA; resistance; KW antibacterial; antifungal; antimicrobial; food crop; blight; soft rot; KW frog; temporin G.
 XX OS Rana temporaria.
 XX PN WO200136647-A1.
 XX PD 25-MAY-2001.
 XX PF 14-JUL-2000; 2000WO-CA000826.
 XX PR 12-NOV-1999; 99US-016549P.
 XX PA (UYV1-) UNIV VICTORIA INNOVATION & DEV CORP.

PI	PI	Misra S, Kay WD, Osusky M;
XX	XX	
WPI	WPI	2001-336007/35.
DR	DR	
XX	XX	Transgenic plants useful as food crops are resistant to late blight due to Phytophthora infestans and/or soft rot due to Erwinia carotovara.
PT	PT	
XX	XX	Disclosure; Page 51; 55pp; English.
PS	PS	
XX	XX	The present invention relates to a transgenic plant, which expresses a cationic peptide of the cecropin-mellitin ('CEMA') family or related peptide. CEMA is an antimicrobial peptide with confers resistance to fungal and bacterial pathogens. Included in the invention are CEMA-related fusion peptides in which an N-terminal extension peptide is fused to the CEMA peptide. A pro-region peptide may be used as a fusion peptide, which neutralises the cationic nature of the CEMA or CEMA-related peptide and provides enhanced stability in cellular environment. The present invention relates to a CEMA or CEMA-related peptide to the host organism. Transgenic plants of the invention may be used in conventional agricultural applications, such as food crops. The plants may display resistance to late blight due to Phytophthora infestans and/or soft rot due to Erwinia carotovara. The present sequence represents a temporary G pro region peptide, which can be used to modify the CEMA peptides used in the invention.
XX	XX	Sequence 24 AA:
SQ		Query Match Score 95; DB 4; Length 24; Best Local Similarity 75.0%; Pred. No. 0.00016; Matches 18; Conservative 5; Mismatches 1; Indels 0; Gaps 0
Qy	23	EEERDAEERDDLERDVEYERK 46
		: : : : : : : :
Db	1	EEERNAAEERREDPDERDQVERK 24
XX	XX	(first entry)
RESULT	7	
ADR88893	ID	ADR88893 standard; protein; 62 AA.
XX	XX	
AC	AC	ADR88893;
XX	XX	
DT	18-NOV-2004	(first entry)
XX	XX	
DB		Amino acid sequence of tryptophyllin-1 designated Pdt-1.
XX	XX	
KW		tryptophyllin-1; Pdt-1; vasodilatory; frog; defensive skin secretion; vascular stenosis; ischaemic heart disease; ischaemic disease;
KW		vascular occlusion; hypertension; blood-brain barrier;
KW		anti-cancer; angiogenesis; healing; transplant; graft;
KW		spinal cord injury; cardiovascular disease; arterial smooth muscle; central nervous system disorder; infection; inflammation; cancer; tumour; Hodgkin's disease; non-Hodgkin's lymphoma; multiple myeloma; hematopoietic malignancy; glaucoma; pulmonary hypertension; stroke; atherosclerosis; asthma; ophthalmologic disease; renal failure; menstrual disorder; obstetric condition; wound; gastroenteric disease; anaphylactic shock; endotoxic shock.
XX	XX	Pachymedusa dacnicolor.
OS		Location/Qualifiers
XX	XX	Key FH 1 .. 20 Peptide FT /note= "signal peptide" Protein FT 21 .. 62 /note= "mature protein"
XX	XX	WO2004074312-A2.
XX	XX	02-SEP-2004.
PP	PP	04-FEB-2004; 2004WO-TB000806.
PD	PD	
XX	XX	

PR	06-JUN-2003 ; 2003GB-00012990.
XX	(UYU/-) UNIV ULSTER.
PA	(SHAW/) SHAW C.
PA	(HIRS/) HIRST D.
PA	(CHEN/) CHEN T.
PA	(OROU/) O ROURKE M.
XX	Shaw C, Hirst D, Chen T, O
PI	WPI: 2004-642491/62.
DR	N-PSDB; ADR88892.
XX	Isolated tryptophyllin peptid
PT	of Pachymedusa dacnicolor try
PT	useful for treating condition
PT	heart disease.
XX	Disclosure: SEQ ID NO 18; 55p
PS	DR
XX	The present sequence represent
CC	from Pachymedusa dacnicolor a
CC	describes tryptophyllin-1 pep
CC	tidolytic activity; trypto
CC	defensive skin secretions. Tr
CC	useful for preparing a medicai
CC	vasodilation is beneficial, s
CC	disease of other organs or or
CC	peripheral vessels, or hypert
CC	biologically active compounds
CC	promoting angiogenesis, for t
CC	insufficiency, to promote hea
CC	grafting, and for treating sp
CC	treating cardiovascular disease
CC	treating hypertension, for di
CC	combination with other therap
CC	useful for treating disorders
CC	systemic disorder, bacterial, v
CC	cancer, tumour, Hodgkin's dis
CC	myeloma and haemopoietic ma
CC	Invention are also useful in
CC	stroke, atherosclerosis, asth
CC	menstrual disorder, obstetric
CC	anaphylactic or endotoxic sho
XX	Sequence 62 AA;
SQ	Query Match 30.1%; Best Local Similarity 44.4%; Matches 16; Conservative 11
Qy	4 LKKSLLFLFGTINLSQLCE
Db	4 LKKSLLFLVLFGLGVFSISPCD
RESULT 8	
ID	AAG66531 standard; protein; 6
XX	AAG66531;
AC	
XX	
DT	22-OCT-2001 (first entry)
XX	
DE	Human interferon-alpha induce
XX	
KW	Human; interferon-alpha induc
KW	chronic viral hepatitis; rela
KW	neoplastic disease; ERP-70.
XX	
OS	Homo sapiens.

PN WO200159155-A2.
 XX 16-AUG-2001.
 XX 09-FEB-2001; 2001WO-GB000578.
 XX 11-FEB-2000; 2000GB-00003203.
 PR 11-FEB-2000; 2000GB-00003204.
 PR 11-FEB-2000; 2000GB-00003205.
 PR 11-FEB-2000; 2000GB-00003206.
 PR 11-FEB-2000; 2000GB-00003207.
 PR 11-FEB-2000; 2000GB-00003208.
 PR 11-FEB-2000; 2000GB-00003210.
 PR 11-FEB-2000; 2000GB-00003212.
 PR 11-FEB-2000; 2000GB-00003213.
 PR 11-FEB-2000; 2000GB-00003215.
 PR 11-FEB-2000; 2000GB-00003216.
 PR 11-FEB-2000; 2000GB-00003219.
 PR 11-FEB-2000; 2000GB-00003220.
 PR 11-FEB-2000; 2000GB-00003221.
 PR 11-FEB-2000; 2000GB-00003222.
 PR 17-FEB-2000; 2000GB-00003222.
 XX DR 2001-483570/52.
 PA (PHAR-) PHARMA PACIFIC PTY LTD.
 PI Meritet J, Dron M, Tovey MG;
 XX WPI; 2001-483570/52.
 XX DR N-PSDB; AAH76458.
 PT Predicting responsiveness of a patient to treatment with a type I
 PT interferon comprising determining the level of induced proteins after
 PT treatment with a type I interferon,
 XX PS Claim 1; Page 58-60; 133pp; English.
 XX The invention relates to a method for predicting responsiveness of a
 CC patient to treatment with a type I interferon. The method comprises
 CC determining the level of one or more proteins with a 646, 164, 598,
 CC 98, 177, 761, 361, 941, 657, 817, 473, 399, 285 or 303 amino acid
 CC sequence fully defined in the specification after treatment with a type I
 CC interferon. The method allows a physician to determine whether a patient
 CC suffering from chronic viral hepatitis, neoplastic disease or relapsing
 CC remitting multiple sclerosis will respond favourably to Type I interferon
 CC treatment via oromucosal administration. The present sequence is one of
 CC the polypeptides listed above that may be used in the method
 XX SQ Sequence 645 AA;
 Query Match 23.0%; Score 70.5; DB 4; Length 645;
 Best Local Similarity 28.2%; Pred. No. 6.7;
 Matches 20; Conservative 10; Mismatches 16; Indels 25; Gaps 2;
 Qy 5 KKSLLLFFGLFTNLNSICE-----BERRDADEERRDLEERDVEVKRFP 48
 Db 4 RKAFLLQLLQLVQLLAVAGREGPDDSSNRENATEEEEEEEDDEEDDLEVKEE-- 61
 Qy 49 PVIGRLNLGIL 59
 Db 62 -----NGVL 65
 RESULT 9
 ADO19794 ID ABM80947 standard; protein; 645 AA.
 XX AC ABM80947;
 AC XX DT 18-NOV-2004 (First entry)
 XX Human PRO polypeptide #359.
 DB XX Human; PRO; immune related disorder; systemic lupus erythematosus;
 XX KW tumour; diagnosis; cell proliferative disorder; cancer;
 KW chronic inflammatory demyelinating polyneuropathy.
 XX Homo sapiens.
 OS XX WO2004043361-A2.
 PN XX PD 27-MAY-2004.
 XX XX 06-NOV-2003; 2003WO-US035268.
 PR 08-NOV-2002; 2002US-0425235P.
 PA (GETH) GENENTECH INC.
 XX PI Fong S, Dennis K, Clark H, Chiu H, Schoenfeld J, Williams PM;
 PI Wood WI, Wu TD;
 XX XX WPI; 2004-420067/39.
 DR XX DR N-PSDB; AD019794.
 PT Novel PRO polypeptide e.g., PRO69614, PRO71106, or PRO86388 useful for
 PT treating an immune related disorder such as systemic lupus erythematosus,
 PT rheumatoid arthritis, osteoarthritis, juvenile chronic arthritis or
 PT spondyloarthropathy.
 PS Claim 7; SEQ ID NO 718; 1731pp; English.
 XX The invention relates to human PRO polypeptides and the polynucleotides
 CC encoding them. The polypeptides and polynucleotides are useful for
 CC treating and diagnosing immune related disorders in mammals. The immune
 CC related disorders include systemic lupus erythematosus, rheumatoid
 CC arthritis, osteoarthritis, juvenile chronic arthritis, systemic
 CC sclerosis, Sjogren's syndrome, vasculitis, sarcoidosis, autoimmune
 CC haemolytic anaemia, autoimmune thrombocytopenia, thyroiditis, diabetes
 CC mellitus, immune-mediated renal disease, demyelinating diseases of the
 CC central or peripheral nervous system, demyelinating polyneuropathy,
 CC Guillain-Barre syndrome and chronic inflammatory demyelinating
 CC polyneuropathy. This sequence represents a human PRO polypeptide of the
 CC invention.
 XX SQ Sequence 645 AA;
 Query Match 23.0%; Score 70.5; DB 8; Length 645;
 Best Local Similarity 28.2%; Pred. No. 6.7;
 Matches 20; Conservative 10; Mismatches 16; Indels 25; Gaps 2;
 Qy 5 KRSLLLFFGLFTNLNSICE-----BERRDADEERRDLEERDVEVKRFP 48
 Db 4 RKAFLLQLLQLVQLLAVAGREGPDDSSNRENATEEEEEEEDDEEDDLEVKEE-- 61
 Qy 49 PVIGRLNLGIL 59
 Db 62 -----NGVL 65
 RESULT 10
 ADO19794 ID ABM80947 standard; protein; 645 AA.
 XX AC ABM80947;
 AC XX DT 18-NOV-2004 (First entry)
 XX DB Tumour-associated antigenic target (TAT) polypeptide PRO2733, SEQ:2443.
 KW Tumour-associated antigenic target TAT; human; overexpression; cancer;
 KW tumour; diagnosis; cell proliferative disorder; breast cancer;

colorectal cancer; lung cancer; ovarian cancer; liver cancer;
 cervical cancer; systemic cancer; bladder cancer; pancreatic cancer;
 cervical cancer; melanoma; leukaemia; hybridisation probe;
 chromosome identification; chromosome mapping; gene mapping;
 gene therapy; cytostatic.
XO Homo sapiens.
XN WO2004030615-A2.
PD 15-APR-2004.
XX PP 29-SEP-2003; 2003WO-US028547.
PR 02-OCT-2002; 2002US-0414971P.
PA (GETH) GENENTECH INC.
XX PI Wu TD, Zhang Z, Zhou Y;
XX DR 2004-147921/32.
DR N-PSDB; ACM38739.

PS New tumor-associated antigenic target polypeptides and nucleic acids, useful in preparing a medicament for treating or detecting a proliferative disorder, e.g. breast, lung, colorectal, ovarian or prostate cancer or tumor.

XX **Claim 12:** SEQ ID NO 2443; 7273pp; English.
XX The invention relates to human tumour-associated antigenic target (TAT) polypeptides, and their related nucleic acids. The TAT polypeptides are overexpressed in cancer tissues compared to normal tissues, and may thus serve as effective targets for the diagnosis and treatment of cancer in mammals. The invention also relates to nucleic acid and polypeptide sequences at least 80% identical to the TAT nucleic acids and polypeptides; expression vectors and host cells comprising a TAT nucleic acid; an antibody specific for a TAT polypeptide; a peptide or organic molecule which binds to a TAT polypeptide; fusion proteins comprising a TAT polypeptide; and methods and compositions for the treatment or diagnosis of cancer in mammals. TAT polypeptides, nucleic acids, antibodies, antagonists, binding molecules and compositions are useful for diagnosing or treating cell proliferative disorder associated with increased TAT expression, particularly cancers such as breast cancer, colorectal cancer, lung cancer, ovarian cancer, liver cancer, bladder cancer, pancreatic cancer, cervical cancer, cancers of the central nervous system, melanoma and leukaemia. TAT nucleic acids may further be used as hybridisation probes, in chromosome and gene mapping, in chromosome identification and in gene therapy. The present sequence represents a TAT polypeptide of the invention

XX **Sequence 645 AA:**

Query Match	23.0%	Score 70.5;	DB 8;	Length 645;
Best Local Similarity	28.2%	Pred. No. 6.7;		
Matches	20;	Conservative	10;	Mismatches 16;

Qy KRSLLLPLFLGTINLSCE-----EERDADEERRDLEEDVVEKRPF 48
Db 4 RKAFLLILGLVQLLAVAGAEGPDEDSSNRENAAEDEEEEEEDDEEEDLVKEE-- 61

Qy 49 PVIGRNLNGIL 59
Db 62 -----NGVL 65

XX Human PRO protein sequence SEQ ID NO:2064.
DE XX human; PRO; immune related disease; inflammatory immune response;
XX KW human; PRO; immune stimulation; antihaemocytic; antiarthritic;
KW immune response stimulatory; antiinflammatory; antipsoriatic;
KW antiallermatic; antidiabetic; CNS; dermatological; gastrointestinal;
KW antihumuratic; antithyroid; haemostatic; hepatotropic; immunostimulant; muscular;
KW nephrotropic; neuroprotective; osteopathic; respiratory; vasotrophic;
KW virucide; gene therapy.
OS Homo sapiens.
XX OS PN WO2004039956-A2.
XX PN 13-MAY-2004.
XX PF 28-OCT-2003; 2003WO-US034381.
XX PR 29-OCT-2002; 2002US-0422472P.
XX PA (GETH) GENENTECH INC.
XX Aggarwal S, Clark H, Gurney AL, Schoenfeld J, Williams PM;
PI Wood WI, Wu TD;
XX DR 2004-376182/35.
DR N-PSDB; ADP56087.

XX New PRO Polynucleotides and polypeptides, useful in useful in diagnosing PT and treating an immune related disease, e.g. systemic lupus erythematosus, rheumatoid arthritis, diabetes mellitus or asthma and in stimulating an immune response.

XX PS Claim 1; SEQ ID NO 2064; 3009pp; English.

XX The present invention describes an isolated PRO nucleic acid (I). Also described: (1) a vector comprising (I); (2) a host cell comprising the vector of (1); (3) a process for producing a PRO polypeptides; (4) an isolated PRO polypeptide; (5) a chimeric molecule comprising the polypeptide of (4) fused to a heterologous amino acid sequence; (6) an antibody which specifically binds to a polypeptide of (4); (7) a composition of matter comprising a polypeptide of (4), an agonist or antagonist of the polypeptide or an antibody that binds to the polypeptide in combination with a carrier; (8) an article of manufacture comprising a container, a label on the container and a composition of matter of (7); (9) a method of treating an immune related disease in a mammal; (10) a method for determining the presence of a PRO polypeptide in a sample suspected of having the polypeptide; (11) a method of diagnosing an immune related disease or an inflammatory immune response in mammal; (12) a method of identifying a compound that inhibits or mimics the activity of or expression of a gene encoding a PRO polypeptide; and (13) a method of stimulating the immune response in a mammal. The PRO sequences have antiallergic, antianaemic, antiarthritic, antidiabetic, antihumuratic, antithyroid, immunostimulant, immunosuppressive, muscular, haemostatic, hepatotropic, neuroprotective, osteopathic, respiratory, vasotrophic and virucide activities, and can be used in gene therapy. The nucleic acid (I) and the encoded polypeptides, compositions, kits and methods are useful in diagnosing and treating an immune related disease and in stimulating an immune response. The present sequence represents a human PRO protein from the present invention.

XX Sequence 645 AA;

Query Match	23.0%	Score 70.5;	DB 8;	Length 645;
Best Local Similarity	28.2%	Pred. No. 6.7;		
Matches	20;	Conservative	10;	Mismatches 16;

Qy 5 KKSLLLPLFLGTINLSCE-----EERDADEERRDLEEDVVEKRPF 48
Db 4 RKAFLLILGLVQLLAVAGAEGPDEDSSNRENAAEDEEEEEEDDEEEDLVKEE-- 61

Qy 49 PVIGRNLNGIL 59
Db 62 -----NGVL 65

XX Sequence 645 AA;

Query Match	23.0%	Score 70.5;	DB 8;	Length 645;
Best Local Similarity	28.2%	Pred. No. 6.7;		
Matches	20;	Conservative	10;	Mismatches 16;

Qy 5 KKSLLLPLFLGTINLSCE-----EERDADEERRDLEEDVVEKRPF 48
Db 4 RKAFLLILGLVQLLAVAGAEGPDEDSSNRENAAEDEEEEEEDDEEEDLVKEE-- 61

RESULT 11
ID ADP56088 Standard; protein: 645 AA.
XX AC ADP56088;
XX DT 18-NOV-2004 (first entry)

Qy 5 KKSLLLPLFLGTINLSCE-----EERDADEERRDLEEDVVEKRPF 48
Db 4 RKAFLLILGLVQLLAVAGAEGPDEDSSNRENAAEDEEEEEEDDEEEDLVKEE-- 61

Result No.	Score	Query Match length	DB ID	Description	
1	329	100.0	329	Sequence 15, Appl	
2	45	13.7	443	Sequence 1, Appl	
3	42.4	12.9	665	Sequence 185531,	
4	42.4	12.9	665	Sequence 185531,	
C	5	40.6	12.3	403	Sequence 4267, Appl
C	6	40.2	12.2	4804	Sequence 30217, A
C	7	40	12.2	56153	Sequence 520, Appl
C	8	39.4	12.0	894	Sequence 378, Appl
C	9	39.4	12.0	894	Sequence 378, Appl
C	10	39.4	12.0	8781	Sequence 1659, Appl
C	11	38.8	11.8	1746	Sequence 116, Appl
				Sequence 16328, A	
				Sequence 44115, A	
				Sequence 3, Appl	
				Sequence 777, App	
				Sequence 2536, App	
				Sequence 2544, App	
				Sequence 7210, App	
				Sequence 777, App	
				Sequence 777, App	
				Sequence 777, App	
				Sequence 2536, App	
				Sequence 2544, App	
				Sequence 1230, App	
				Sequence 12397, A	
				Sequence 20397, A	
				Sequence 8246, App	
				Sequence 3, Appl	
				Sequence 545, App	
				Sequence 1, Appl	
				Sequence 1348, App	
				Sequence 1348, App	
				Sequence 1511, App	
				Sequence 44029, A	
				Sequence 28644, A	
				Sequence 5, Appl	
				Sequence 1, Appl	
				Sequence 2, Appl	
				RESULT 1	
				US-10-719-623-15	
				; Sequence 15, Application US/10719623	
				; Publication No. US20040073977A1	
				; GENERAL INFORMATION:	
				; APPLICANT: Misra and Kay	
				; TITLE OF INVENTION: Transgenic Plants that are Resistant to a Broad Spectrum	
				; FILE REFERENCE: 673243	
				; CURRENT APPLICATION NUMBER: US/10/719,623	
				; PRIORITY APPLICATION NUMBER: 60/125,072	
				; PRIORITY FILING DATE: 1999-03-17	
				; PRIORITY APPLICATION NUMBER: PCT/CA00/00288	
				; PRIORITY FILING DATE: 2000-03-16	
				; PRIORITY APPLICATION NUMBER: 09/936,885	
				; PRIORITY FILING DATE: 2001-09-17	
				; NUMBER OF SEQ ID NOS: 41	
				; SOFTWARE: PatentIn Ver. 2.0	
				; SEQ ID NO 15	
				; LENGTH: 329	
				; TYPE: DNA	
				; ORGANISM: Rana temporaria	
				; FEATURE:	
				; NAME/KEY: CDS	
				; LOCATION: (53) . . . (238)	
				US-10-719-623-15	
				Query Match Best Local Similarity 100.0%; Score 329; DB 17; Length 329;	
				Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	
QY	1			CCCCCTCCAGCTGCTACATTCATAACCAACTGAACCCAGCCAAAGATGTTAAC 60	

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARES

Result No.	Score	Query Match length	DB ID	Description
1	329	100.0	329	Sequence 15, Appl
2	45	13.7	443	Sequence 1, Appl
3	42.4	12.9	665	Sequence 185531,
4	42.4	12.9	665	Sequence 185531,
C	5	40.6	12.3	403
C	6	40.2	12.2	4804
C	7	40	12.2	56153
C	8	39.4	12.0	894
C	9	39.4	12.0	894
C	10	39.4	12.0	8781
C	11	38.8	11.8	1746

LENGTH: 665
 TYPE: DNA
 ORGANISM: Human
 FEATURE:
 NAME/KEY: misc_feature
 LOCATION: (1)..(65)
 OTHER INFORMATION: n = A,T,C or G

Query Match 12.9%; Score 42.4; DB 17; Length 65;
 Best Local Similarity 53.7%; Pred. No. 0.46;
 Matches 8; Conservative 0; Mismatches 76; Indels 0; Gaps 0;

Dy 166 AAGGGATGTGAAGTGGAAAAGGGATTTCCAGTGAATGGAGGATACTCATGTATT 225
 Db 7 AGATAAATTAAATTAAATGTTCTTCAGTCTCTCATCATAACTAAAT 66

Dy 226 TTGGGAAATAACCAAAAAAGTTAACACTTGGAAATGGAAATTGGAAATCTAATG 285
 Db 67 TTATGTAACAACTATCAATTATGCGAAATGAAATACTATTTATAATT 126

Dy 286 TGGAAATGCTATTAGCTTAATGCAACATCAAGTCCTATATAAA 329
 Db 127 TCGAAGAAATATCTTGATGTTTACAGAAATTATCTATATAA 170

RESULT 5
 US-09-864-408A-4267/c
 Sequence 4267, Application US/09864408A
 Publication No. US20040009474A1

GENERAL INFORMATION:
 APPLICANT: Leach, Martin D.
 APPLICANT: Shikmets, Richard A.
 TITLE OF INVENTION: No. US20040009474A1 Human Polynucleotides and Polypeptides Encoded by Human Polynucleotides and Polypeptides

FILE REFERENCE: 21402-012

CURRENT APPLICATION NUMBER: US/09/864,408A
 CURRENT FILING DATE: 2001-05-24
 PRIOR APPLICATION NUMBER: 60/206,690
 PRIOR FILING DATE: 2000-05-24
 NUMBER OF SEQ ID NOS: 9068
 SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO: 4267
 LENGTH: 4 03
 TYPE: DNA
 ORGANISM: Homo sapiens

Query Match 12.3%; Score 40.6%; DB 11; Length 403;
 Best Local Similarity 51.4%; Pred. No. 1.1%;
 Matches 94; Conservative 0; Mismatches 89; Indels 0; Gaps 0;

Dy 144 AAAGAAAGGATGATCTGAAGAAAGGGATGTTGAAGNGGAAAGGCATTTCAGTGA 203
 Db 293 ATACATATGATGAGCAATCTACTGCTATGCAACTTTCTAGCT 234

Dy 204 TTGGAAAGGATGACTCAATGGTATTGGAAATAACCAAAAGTTAAACTTGGAAA 263
 Db 233 TAGTAAATATTTCTGAGAAGATAAACCTAAATGATGAAAGA 174

Dy 264 TGGAAATGGAATCATCTAACTGAAATGGATGTATTAGCTAAATGCTTA 323
 Db 173 CAAACAGCTACTGAGCTATGAAATATGGCATATTCATGGCATAGATGCTCA 114

Dy 324 TAA 326
 Db 113 TCA 111

RESULT 6
 US-10-357-930-30217
 Sequence 30217, Application US/10357930
 Publication No. US20040259086A1
 GENERAL INFORMATION:

CURRENT APPLICATION NUMBER: US-10-357-930-30217
 CURRENT FILING DATE: 2003-01-21
 PRIORITY NUMBER: PCT/EP01/02955
 PRIORITY NUMBER: US20040048254A1
 PRIORITY NUMBER: US/10221714A
 PRIORITY NUMBER: 2001-03-15
 PRIORITY NUMBER: DE 100113847.0
 PRIORITY NUMBER: DE 10019058.8
 PRIORITY NUMBER: 2000-04-05

RESULT 7
 US-10-221-714A-520/c
 Sequence 520, Application US/10221714A
 Publication No. US20040048254A1
 GENERAL INFORMATION:
 APPLICANT: OLEK, Alexander
 APPLICANT: PIERENBROCK, Christian
 APPLICANT: BERLIN, Kurt
 TITLE OF INVENTION: Diagnosis of Diseases Associated with tumor suppressor genes and oncogenes
 FILE REFERENCE: 5013.1.005
 CURRENT APPLICATION NUMBER: US-10-221-714A
 CURRENT FILING DATE: 2003-01-21
 PRIORITY NUMBER: PCT/EP01/02955
 PRIORITY NUMBER: DE 100113847.0
 PRIORITY NUMBER: DE 10019058.8
 PRIORITY NUMBER: 2000-04-05

PRIOR APPLICATION NUMBER: DE 10019173 .8
 PRIOR FILING DATE: 2000-04-07
 PRIOR APPLICATION NUMBER: DE 10032529 .7
 PRIOR FILING DATE: 2000-06-30
 PRIOR APPLICATION NUMBER: DE 10043826 .1
 PRIOR FILING DATE: 2000-09-01
 NUMBER OF SEQ ID NOS: 540
 SEQ ID NO: 520
 LENGTH: 6153
 TYPE: DNA
 ORGANISM: Artificial Sequence
 FEATURE:
 OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens) US-10-221-714A-520

Query Match 12.2%; Score 40; DB 17; Length 56153;
 Best Local Similarity 53.9%; Pred. No. 16;
 Matches 82; Conservative 0; Mismatches 70; Indels 0; Gaps 0;

Qy 178 AGTGGAAAAGCGATTTTTCAGTGATTGGAAATA 237
 Db 9356 ACTCCAAATACCAATTCTCAAAATCCATTAATCTAACAAATTCAAATTAA 9297

Qy 238 ACCAAAAAAAGTTAAACCTTGGAAATGGAAATCATCTAAATGGGAAATGTCAAT 297
 Db 9296 ACATTTAAATTAAATTCAATTAAATTAAATTAAATTAAATTAAATA 9205

Qy 298 TAGTAAATGCACATCAATGTCCTATAAAA 329
 Db 9236 TACCTAAACCTAACAAATATTTAAATA 9205

RESULT 8
 US-10-027-632-3788/c
 Sequence 3788, Application US/10027632
 Publication No. US20020198371A1
 GENERAL INFORMATION:
 APPLICANT: Wang, David G.
 TITLE OF INVENTION: Identification and Mapping of Single Nucleotide
 FILE REFERENCE: 108827.129

CURRENT APPLICATION NUMBER: US/10/027,632
 CURRENT FILING DATE: 2002-04-30
 PRIOR APPLICATION NUMBER: US 60/218,006
 PRIOR FILING DATE: 2000-07-12
 PRIOR APPLICATION NUMBER: US 60/198,676
 PRIOR FILING DATE: 2000-04-20
 PRIOR APPLICATION NUMBER: US 60/193,483
 PRIOR FILING DATE: 2000-03-29
 PRIOR APPLICATION NUMBER: US 60/185,218
 PRIOR FILING DATE: 2000-02-24
 PRIOR APPLICATION NUMBER: US 60/167,363
 PRIOR FILING DATE: 1999-11-23
 PRIOR APPLICATION NUMBER: US 60/156,358
 PRIOR FILING DATE: 1999-09-28
 PRIOR APPLICATION NUMBER: US 60/146,002
 PRIOR FILING DATE: 1999-08-09
 NUMBER OF SEQ ID NOS: 325720
 SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO: 3788

Query Match 12.0%; Score 39.4; DB 17; Length 894;
 Best Local Similarity 54.5%; Pred. No. 3.3;
 Matches 79; Conservative 0; Mismatches 66; Indels 0; Gaps 0;

Qy 139 TGAGAAAGAGAGATGATCTCGAGAAAGGGATGTGAAAGCGATTITTC 198
 Db 347 TCAGGAAATTACTCGAAACCAATTATGGAGACTTACCGAGAACCTCTATAGTC 288

Qy 199 AGTGGGAAAGGATACATGGTATTGGGAAATAACCAAAAAAGTTAAACTT 258
 Db 287 AATCAAAACATACACTCAGATTCTTAGGAAACAAACAAAGTTAACAGCTT 228

Qy 259 GGAATGGGAAATGGAAATCATCTAA 283
 Db 227 AATTTAAATTTATGTCCCTGAA 203

RESULT 10
 US-10-311-455-1659
 Sequence 1659, Application US/10311455
 Publication No. US2003014306A1
 GENERAL INFORMATION:
 APPLICANT: OLEK, Alexander
 APPLICANT: PIERENBROCK, Christian
 TITLE OF INVENTION: Diagnosis of Diseases Associated with the Immune System by Determination of Cytosine Methylation
 FILE REFERENCE: 5013-1014
 CURRENT APPLICATION NUMBER: US/10/311,455
 CURRENT FILING DATE: 2002-12-16
 PRIOR APPLICATION NUMBER: PCT/EP01/07537

Query Match 12.0%; Score 39.4; DB 13; Length 894;
 Best Local Similarity 54.5%; Pred. No. 3.3;
 Matches 79; Conservative 0; Mismatches 66; Indels 0; Gaps 0;

Qy 139 TGAAGAAAGGAGATGATCTCGAGAAAGGGATGTGAAAGCGATTITTC 198
 Db 347 TCGAGAATTACTCGAAACCAATTGGAGACTTACCGAGAACCTCTATAGTC 288

PRIOR FILING DATE: 2001-07-02
 PRIOR APPLICATION NUMBER: DE 10032529.7
 PRIOR FILING DATE: 2000-06-30
 PRIOR APPLICATION NUMBER: DE 10043826.1
 PRIOR FILING DATE: 2000-09-01
 NUMBER OF SEQ ID NOS: 2424
 SEQ ID NO: 1659
 LENGTH: 8789
 TYPE: DNA
 ORGANISM: Artificial Sequence
 OTHER INFORMATION: chemically treated genomic DNA (Homo sapiens)
 US-10-311-455-1659

Query Match Score 12.0%; Best Local Similarity 51.4%; Matches 91;保守性 0; Mismatches 86; Indels 0; Gaps 0;
 Qy 126 AGAGAGATGCCGATGAAAGAGAGATGATCTCGAAAGAAGGGATGTGAAGTGGAAA 185
 Db 748 AGTTAGATAGAAATATGAAATAAATTAATGAAATAAATGAAATAAATGAAATAA 807
 Qy 186 AGCAGATTTCACAGTGAAAGGATACTCAATGGTATTGGAAATAACCAAAA 245
 Db 808 TAGAATTATAAAAGTTAAATATATAATATAAGTATGAAATTGAGGAGAAA 867
 Qy 246 AAGTTAAACATTTGAAATGGAAATGGAAATCATCTAAATCTGGAAATGCTATTGCT 302
 Db 868 AAATTAAGTTGAAATTTGAAATTTGAAATTTGAAATTTGCTTTGCTT 924

RESULT 11
 US-10-411-910A-116
 Sequence 116, Application US/10411910A
 Publication No. US20040209256A1
 GENERAL INFORMATION:
 APPLICANT: Dillon, Harrison F.
 TITLE OF INVENTION: Methods and Compositions for Evolving Hydrogenase Genes
 FILE REFERENCE: H2041203-P
 CURRENT APPLICATION NUMBER: US/10/411,910A
 CURRENT FILING DATE: 2003-04-12
 NUMBER OF SEQ ID NOS: 343
 SOFTWARE: PatentIn version 3.2
 SEQ ID NO: 116
 LENGTH: 1746
 TYPE: DNA
 ORGANISM: Thermoanaerobacter tengcongensis
 US-10-411-910A-116

Query Match Score 11.8%; Best Local Similarity 51.8%; Matches 88;保守性 0; Mismatches 82; Indels 0; Gaps 0;
 Qy 160 CGAAGAAACGGATGTTGAAGTGGAAAAGGGATTTCACAGTGTGAAGTGGAGGATACTCA 219
 Db 1449 CAAGCTAACGGCAGAGCTGATCTACATTTATAGAATGATGGGGATGCCAGGTG 1508
 Qy 220 TGGTATTTCGGAAATACCAAAAGTTAACCTTAAACCTTGGAAATGGTGAAT 279
 Db 1509 CTGTTATAAAGGGTGGAGCAAGCCAAATCCACAATCCTAACGAGATGGAAAGTCANGAA 1568
 Qy 280 CTAATGTGGAAATGTCATTAGCTAAATGGCACATCAAAATCTTATAAAA 329
 Db 1569 ATTAAGGGDAGGCATTACAGGATAGACAGAACCTGCCTATAAGA 1618

APPLICANT: Hanzel, David K.
 APPLICANT: Chen, Weisheng
 TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR FILE EXPRESSION ANALYSIS BY MICROARRAY
 CURRENT APPLICATION NUMBER: US/09/864,761
 CURRENT FILING DATE: 2000-05-23
 PRIOR APPLICATION NUMBER: US 60/180,312
 PRIOR FILING DATE: 2000-02-04
 PRIOR APPLICATION NUMBER: US 60/207,456
 PRIOR FILING DATE: 2000-05-26
 PRIOR APPLICATION NUMBER: US 09/632,366
 PRIOR APPLICATION NUMBER: GB 24263.6
 PRIOR FILING DATE: 2000-10-04
 PRIOR APPLICATION NUMBER: US 60/236,359
 PRIOR FILING DATE: 2000-05-27
 PRIOR APPLICATION NUMBER: PCT/US01/00666
 PRIOR FILING DATE: 2001-01-30
 PRIOR APPLICATION NUMBER: PCT/US01/00667
 PRIOR FILING DATE: 2001-01-30
 PRIOR APPLICATION NUMBER: PCT/US01/00664
 PRIOR FILING DATE: 2001-01-30
 PRIOR APPLICATION NUMBER: PCT/US01/00669
 PRIOR FILING DATE: 2001-01-30
 PRIOR APPLICATION NUMBER: PCT/US01/00665
 PRIOR FILING DATE: 2001-01-30
 PRIOR APPLICATION NUMBER: PCT/US01/00668
 PRIOR FILING DATE: 2001-01-30
 PRIOR APPLICATION NUMBER: PCT/US01/00663
 PRIOR FILING DATE: 2001-01-30
 PRIOR APPLICATION NUMBER: PCT/US01/00662
 PRIOR FILING DATE: 2001-01-30
 PRIOR APPLICATION NUMBER: PCT/US01/00670
 PRIOR FILING DATE: 2001-01-30
 PRIOR FILING DATE: 2000-09-21
 PRIOR APPLICATION NUMBER: US 09/608,408
 PRIOR FILING DATE: 2000-06-30
 PRIOR APPLICATION NUMBER: US 09/774,203
 NUMBER OF SEQ ID NOS: 49117
 SOFTWARE: Annonax Sequence Listing Engine vers. 1.1
 SEQ ID NO: 16328
 LENGTH: 466
 TYPE: DNA
 ORGANISM: Homo sapiens
 FEATURE:
 OTHER INFORMATION: MAP TO AL034452.8
 US-09-864-761-16328
 Query Match Score 38.6%; Best Local Similarity 52.1%; Matches 86; Conservative 0; Mismatches 79; Indels 0; Gaps 0;
 Qy 148 AACAGATGATCTCGAGAAAGGGATGTTGAAGTGGAAAGCGATTTCAGTGATTGG 207
 Db 26 AGGAAATTCTGGCTATTAGGAGTTATCAGATTTATCATAATGATGATGAGA 85
 Qy 208 AACGATACATGGATTGGAAATTAACCAAAGTTAAACTTGGAAATGATGAGA 267
 Db 86 AAAAAAATGAAATAAGGTAACAGTCAAGAAGTTACCAAAAGTCRAAATAAGGAAATGAGC 145
 Qy 268 ATGGAAATCATCTATGTGAATGTCATTAGCTAAACTTGGATGATGAGA 312
 Db 146 ATCTGATGTTCTTAACACTTCTAGCTCAGCTCAGCAAAAT 190

RESULT 12
 US-09-864-761-16328
 Sequence 16328, Application US/09864761
 GENERAL INFORMATION:
 APPLICANT: Penn, Sharron G.
 APPLICANT: Rank, David R.

RESULT 13
 US-10-424-599-44115

```

Sequence 44115, Application US/10424599
| GENERAL INFORMATION:
|   Publication No. US20040031072A1
|   APPLICANT: La Rosa Thomas J
|   APPLICANT: Kovacic David K
|   APPLICANT: Zhou Yihua
|   APPLICANT: Cao Yongwei
|   TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
|   Title of Invention: Plants and Uses Thereof for Plant Improvement
|   FILE REFERENCE: 38-2153223B
|   CURRENT APPLICATION NUMBER: US/10/424,599
|   NUMBER OF SEQ ID NOS: 285684
|   SEQ ID NO: 44115
|   LENGTH: 2211
|   TYPE: DNA
|   ORGANISM: Glycine max
|   FEATURE: OTHER INFORMATION: Clone ID: PAT_MRT3847_139834C.1
|   US-10-424-599-44115
Query Match          Score 38.6; DB 17; Length 2211;
Best Local Similarity 55.6%; Pred. No. 8,3; Mismatches 59; Indels 0; Gaps 0;
Matches 74; Conservative 0; Mismatches 59; Indels 0; Gaps 0;
Qy      55  GTTACCTTGAGAAATCCCTTACTCCTTCCTCTGGACCATCACTTATCTCT 114
Db      1  GTTGAACCTCAGAACCTCATAAAACCTCTCTCTCTCTGTTGTCATT 60
Qy      115 CTGTGAGAAAGAGAGAGATGCCGATGAGAAAGAGATGATCTCGAAGAAAGGGATGT 174
Db      61  GGAGAGGAAATGAAATGAGAAAGTAGAAGAGAGGAGATGAAAGATAAGAA 120
Qy      175 TGAAGTGGAAAG 187
Db      121 GGAGTGGAAAG 133

RESULT 14
US-09-982-091A-3
Sequence 3, Application US/09982091A
| PATENT NO. US20020151030A1
| GENERAL INFORMATION:
|   APPLICANT: CALIFORNIA INSTITUTE OF TECHNOLOGY
|   APPLICANT: KUMAGAI, Akiko
|   APPLICANT: DUNPHY, William
|   APPLICANT: DUNPHY, William
|   TITLE OF INVENTION: CLASPIN PROTEINS AND METHODS OF USE THEREOF
|   FILE REFERENCE: CIP11320-1
|   CURRENT APPLICATION NUMBER: US/09/982,091A
|   CURRENT FILING DATE: 2002-10-17
|   PRIOR APPLICATION NUMBER: US 60/241,246
|   PRIOR FILING DATE: 2000-10-17
|   NUMBER OF SEQ ID NOS: 12
|   SOFTWARE: PatentIn version 3.1
|   SEQ ID NO: 3
|   LENGTH: 4756
|   TYPE: DNA
|   ORGANISM: Homo sapiens
|   US-09-982-091A-3

Query Match          Score 38.6; DB 9; Length 4756;
Best Local Similarity 53.7%; Pred. No. 12; Mismatches 69; Indels 0; Gaps 0;
Matches 80; Conservative 0; Mismatches 69; Indels 0; Gaps 0;
Qy      120 AGGAAGAGAGAGATGCCGATTTTCCAGTGTGGAAAGGATACTCAATGTTATTTCGAGA 179
Db      2026 AGGTAGAGAAAGAGAAAGGAGAAACTAGAGGAAGGGAAAGGGAAAGGAGGG 2085
Qy      180 TGGAAAGGCAATTTTCCAGTGTGGAAAGGATACTCAATGTTATTTCGAGAATAAC 239
Db      2086 AGGAGAAGGAGGAATCAGGAGACTGAGAATTCTCTAGTGTGAAGAAATAGAAA 2145
Qy      240 CAAAAAAAGCTAAACCTTGGAAATGGAA 268

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Db      2146  ||||| GAAAGATGAAAAAGAATGGATAAAGRA 2174
Db      RESULT 15
Db      US-09-764-860-777
Db      Sequence 777, Application US/09764860
Db      Patent No. US20080495341
Db      GENERAL INFORMATION:
Db      APPLICANT: Rosen et al.
Db      TITLE OF INVENTION: Nucleic Acids, Proteins, and Antibodies
Db      FILE REFERENCE: PC008
Db      CURRENT APPLICATION NUMBER: US/09/764,860
Db      CURRENT FILING DATE: 2001-01-17
Db      Prior application data removed - consult PALM or file wrapper
Db      NUMBER OF SEQ ID NOS: 1198
Db      SOFTWARE: PatentIn Ver. 2.0
Db      SEQ ID NO: 777
Db      LENGTH: 23934
Db      TYPE: DNA
Db      ORGANISM: Homo sapiens
Db      US-09-764-860-777

Query Match          11.7%; Score 38.6; DB 9; Length 2393
Best Local Similarity 47.3%; Pred. No. 25;
Matches 116; Conservative 0; Mismatches 129; Indels 8

Qy      56  TTACCTTGAAATACTCCCTTCACTTCCTTCTGCACCATCAAC
Db      19368  TTTTCCATATAAATTTTTATTTCGACCTGAGATGATGGAA
Qy      116  TGTTGGAAAGAGAGATGCCGATGAAGAAAGAGATGATCTCGAAGA
Db      19428  CTTCCCATTAACAGGTCAAGTACAAGGAAACTTGGGGAAAAT
Qy      176  GAAGTGGAAAGGATTTTCCAGTGTGAAAGATACTCAATGGTAT
Db      19488  CAAACTAAAGATAAAATTCCCTCATGATGAAGTCTCGAAGTCATCT
Qy      236  TAACCRAAAAGTTAAACTTGGAAATGGAAATCTTAATGT
Db      19548  GGTTTAAAATTAAATTGGTAAAGTTGCTAAAGTTCAAGTCATT
Qy      296  TTTAG 300
Db      19608  TATTG 19612

Search completed: March 31, 2005, 19:10:06
Job time : 298 secs

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Result No.	Score	Query	Match	Length	DB ID	Description
SUMMARIES						
1	329	100.0	329	3	US-09-319-730-18	Sequence 18, Appli
2	329	100.0	329	4	US-09-336-885A-15	Sequence 15, Appli
3	212.8	64.7	323	3	US-09-319-730-14	Sequence 14, Appli
4	203.8	61.9	356	3	US-09-319-730-16	Sequence 1, Appli
5	45	13.7	443	4	US-09-336-885A-1	Sequence 1, Appli
C 6	40.6	12.3	7218	1	US-08-232-463-14	Sequence 14, Appli
C 7	40.6	12.3	45983	4	US-09-949-016-17010	Sequence 17010, A
C 8	40.2	12.2	4756	4	US-09-949-016-4455	Sequence 4455, Ap
C 9	40	12.2	202111	4	US-09-949-016-13377	Sequence 13377, A
C 10	39.8	12.1	601	4	US-09-949-016-183626	Sequence 183626,
C 11	39.2	11.9	1664976	4	US-09-916-421B-1	Sequence 1, Appli
C 12	39.2	11.9	1664976	4	US-09-916-421B-1	Sequence 1, Appli
C 13	37.8	11.5	5852	1	US-09-867-106-2	Sequence 2, Appli
C 14	37.4	11.4	600681	4	US-09-790-988-1	Sequence 1, Appli
C 15	36.8	11.2	1176	1	US-08-602-010A-5	Sequence 5, Appli
C 16	36.8	11.2	1176	1	US-08-680-726A-2	Sequence 5, Appli
C 17	36.8	11.2	1176	3	US-09-092-409-5	Sequence 5, Appli
C 18	36.8	11.2	5495	1	US-08-602-010A-1	Sequence 1, Appli
C 19	36.8	11.2	5495	1	US-08-602-010A-2	Sequence 2, Appli
C 20	36.8	11.2	5495	1	US-08-680-726A-1	Sequence 1, Appli
C 21	36.8	11.2	5495	1	US-08-680-726A-2	Sequence 2, Appli
C 22	36.8	11.2	5495	3	US-09-092-409-1	Sequence 1, Appli
C 23	36.8	11.2	5495	3	US-09-092-409-2	Sequence 2, Appli
C 24	36.8	11.2	10592	1	US-08-680-726A-51	Sequence 51, Appli
C 25	36.8	11.2	10592	1	US-08-680-726A-51	Sequence 51, Appli
C 26	36.8	11.2	10592	1	US-08-680-726A-52	Sequence 52, Appli
C 27	36.8	11.2	10592	1	US-08-680-726A-52	Sequence 52, Appli

ALIGNMENTS

RESULT 1
US-09-319-730-18
/ Sequence 18, Application US/09319730
/ Patent No. 6310176
/ GENERAL INFORMATION:
/ APPLICANT: BARBA, Donatella
/ APPLICANT: IMMICO, Maurizio
/ TITLE OF INVENTION: ANTIMICROBIAL ACTIVE POLYPEPTIDES
/ FILE REFERENCE: 003100-574
/ CURRENT APPLICATION NUMBER: US/09/319,730
/ PRIORITY FILING DATE: 1998-08-24
/ PRIOR APPLICATION NUMBER: PCT/SE97/02075
/ PRIOR FILING DATE: 1997-12-12
/ PRIOR APPLICATION NUMBER: SE 9604593-5
/ NUMBER OF SEQ ID NOS: 19
/ SOFTWARE: Patentin Ver. 2.0
/ SEQ ID NO: 18
/ LENGTH: 329
/ TYPE: DNA
/ ORGANISM: Rana temporaria
/ FEATURE:
/ NAME/KEY: CDS
/ LOCATION: (235) .. (235)
US-09-319-730-18

Query Match Best Local Similarity 100.0% Score 329; DB 3; Length 329;
Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CCCCTCCAGCTGTCATACCTCTCATACCTGTACTCTCTGTCA 60
Db 1 CCCCTCCAGCTGTCATACCTCTCATACCTGTACTCTCTGTCA 60

Qy 1 CTTGAGAGATACTCCCTTACTCCCTTACTCTCTGTCA 120
Db 1 CTTGAGAGATACTCCCTTACTCTCTGTACTCTCTGTCA 120

Qy 121 GGAGAGAGAGATCGATCGATCTGAAGAAAGAGATGATCTGAAGT 180
Db 121 GGAGAGAGATCGATCTGAAGAAAGAGATGATCTGAAGT 180

Qy 181 GGAAAGGCATTTTCCCTGTATTGGGATCTCATCTTGGAAATAACC 240
Db 181 GGAAAGGCATTTTCCAGTGATTGGGATCTCATCTTGGAAATAACC 240

Qy 241 AAAAAGTTAAAACCTTGGAAATCATCTTAATGGATGTCTTTAG 300
Db 241 AAAAAGTTAAAACCTTGGAAATCATCTTAATGGATGTCTTTAG 300

RESULT 5
 US-09-936-885A-1
 Sequence 1, Application US/09936885A
 SEQ ID NO 1
 GENERAL INFORMATION:
 APPLICANT: Misra, and Kay
 TITLE OF INVENTION: Transgenic Plants that are Resistant to a Broad Spectrum of Pathogens
 FILE REFERENCE: 60933
 CURRENT APPLICATION NUMBER: US/09/936,885A
 CURRENT FILING DATE: 2001-09-17
 PRIORITY NUMBER: 60/125, 072
 PRIOR FILING DATE: 1999-03-17
 PRIOR APPLICATION NUMBER: PCT/CA00/00288
 PRIOR FILING DATE: 2000-03-16
 NUMBER OF SEQ ID NOS: 42
 SOFTWARE: PatentIn Ver. 2.0
 SEQ ID NO 1
 TYPE: DNA
 NAME/KEY: CDS
 ORGANISM: Phylomedusa bicolor
 FEATURE:
 LOCATION: (58) .. (294)
 US-09-936-885A-1

Query Match Score 13.7%; Pred. No. 0.0096%; Length 443;
 Best Local Similarity 65.3%; Matches 0; Indels 0; Gaps 0;
 Matches 66; Conservative 0;
 RESULT 6
 US-08-232-463-14/c
 Sequence 14, Application US/08232463
 SEQ ID NO 5670367
 GENERAL INFORMATION:
 APPLICANT: DORNER, F.
 APPLICANT: SCHILFLINGER, F.
 APPLICANT: FALKNER, F. G.
 TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
 NUMBER OF SEQUENCES: 52

CORRESPONDENCE ADDRESS:
 ADDRESSEE: Foley & Lardner
 STREET: 1800 Diagonal Road, Suite 500
 CITY: Alexandria
 STATE: VA
 COUNTRY: USA
 ZIP: 22313-0299
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: PatentIn Release #1.0, Version #1.25
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/232, 463
 FILING DATE:
 CLASSIFICATION: 435
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US/07/935, 313
 FILING DATE:
 APPLICATION NUMBER: EP 91 114 300 6
 FILING DATE: 26-AUG-1991
 ATTORNEY/AGENT INFORMATION:
 NAME: BENT, Stephen A.
 REGISTRATION NUMBER: 29, 768
 REFERENCE/DOCKET NUMBER: 30472/114 IMMU
 TELECOMMUNICATION INFORMATION:
 TELEPHONE: (703) 636-9300
 TELEX: 899149
 INFORMATION FOR SEQ ID NO: 14:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 7218 base pairs
 STRANDBNESS: single
 TOPOLOGY: linear
 IMMEDIATE SOURCE:
 CLONE: P7Z9PT-F1s
 US-08-232-463-14

Query Match Score 12.3%; Pred. No. 0.39%; Length 7218;
 Best Local Similarity 2.3%; Matches 4; Mismatches 55; Indels 0; Gaps 0;
 Matches 4; Conservative 117; Mismatches 55; Indels 0; Gaps 0;
 RESULT 7
 US-09-149-016-17010/c
 Sequence 17010, Application US/09949016
 SEQ ID NO 6812339
 GENERAL INFORMATION:
 APPLICANT: VENTER, J. Craig et al.
 TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
 FILE REFERENCE: CL0011307
 CURRENT APPLICATION NUMBER: US/09/949, 016
 CURRENT FILING DATE: 2000-04-14
 PRIORITY NUMBER: 60/241, 755
 PRIOR APPLICATION NUMBER: 2000-10-20
 PRIORITY NUMBER: 60/237, 768
 PRIOR FILING DATE: 2000-10-03
 PRIORITY NUMBER: 60/231, 498
 PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012
 SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO: 17010
 LENGTH: 45983
 TYPE: DNA
 ORGANISM: Human
 FEATURE:
 NAME/KEY: misc_feature
 LOCATION: (1)..(45983)
 OTHER INFORMATION: n = A,T,C or G

US-09-949-016-17010

Query Match 12.3%; Score 40.6; DB 4; Length 45983;
 Best Local Similarity 51.4%; Pred. No. 0.72; Indels 0; Gaps 0;
 Matches 94; Conservative 0; Mismatches 89; Indels 0; Gaps 0;

Qy 144 AAAGAAGAGATGATCTCGAGAAAGGGATGTTGAAGTGGAAAAGCGGATTTCAGTGA 203
 Db 34909 ATACAAATGATCAGTAGCATGATAATCTAGTGCTATGTAAAGCAACTTTCAGCT 34850

Qy 204 TTGGAGGAGTACTCATGGTATTGGAAAAAAATTACCAAAGTTAAACTTGGAA 263
 Db 34849 TACTAAATATTCATGTTTCTAGTTTGAAGAGATAAGCTTAATATAGTAGAGA 34790

Qy 264 TGGATTGGAAATCTCATCATGGTAAATGGCACTCAATGCTTA 323
 Db 34789 CAACAGCTTACATGAGCTATAGCTATAGAAATAATGGCATATGGACATAGATGCTCA 34730

Qy 324 TAA 326
 Db 34729 TCA 34727

RESULT 9
 US-09-949-016-13877/c
 Sequence 13877, Application US/09949016
 Patent No. 6812339
 GENERAL INFORMATION:
 APPLICANT: VENTER, J. Craig et al.
 TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
 FILL REFERENCE: CLO001307
 CURRENT FILING DATE: 2000-04-14
 PRIOR APPLICATION NUMBER: US/09/949,016
 PRIOR FILING DATE: 2000-10-20
 SEQ ID NO: 4455
 LENGTH: 4756
 SOFTWARE: FastSEQ for Windows Version 4.0
 NUMBER OF SEQ ID NOS: 207012
 SEQ ID NO: 4455
 LENGTH: 4756
 ORGANISM: Human
 US-09-949-016-4455

Query Match 12.3%; Score 40.2; DB 4; Length 4756;
 Best Local Similarity 54.4%; Pred. No. 0.43; Indels 0; Gaps 0;
 Matches 81; Conservative 0; Mismatches 68; Indels 0; Gaps 0;

Qy 120 AGGAGAGAGAGATGCCATGAGAACAGAGATGATCTCGAGAAAGGGATGTTGAAG 179
 Db 2010 AGCTAGAAAGAGAGAGAGAGAGACTAGGGAGAGAGAGAGAGAGAGAGAGGG 2089

Qy 180 TGGAAAGGGATTTCAGCATGGAAAGGATACTCAATGCTTATGGAAATAAC 239
 Db 2030 AGGAGAGAGAAATGAAATCTGGAAATTCCCTACTAGAGAAATAAGAAA 2149

Qy 240 CAAAAAGTAAACCTGGAAATGGAA 268
 Db 2150 CAAGAGTAAAGAAATGGATAAGAA 2178

RESULT 10
 US-09-949-016-138626
 Sequence 138626, Application US/09949016
 Patent No. 6812339
 GENERAL INFORMATION:
 APPLICANT: VENTER, J. Craig et al.
 TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
 FILL REFERENCE: CLO001307
 CURRENT FILING DATE: 2000-04-14
 PRIOR APPLICATION NUMBER: US/09/949,016
 PRIOR FILING DATE: 2000-10-20
 SEQ ID NO: 183626
 LENGTH: 601
 SOFTWARE: FastSEQ for Windows Version 4.0
 NUMBER OF SEQ ID NOS: 207012
 SEQ ID NO: 183626
 LENGTH: 601
 TYPE: DNA
 ORGANISM: Human
 US-09-949-016-183626

Query Match 12.2%; Score 40; DB 4; Length 202111;
 Best Local Similarity 53.9%; Pred. No. 1.7; Mismatches 0; Indels 0; Gaps 0;

Qy 119 GAGGAAGAGAGATGCCATGAGAACAGAGATGATCTCGAGAAAGGGATGTTGAAG 178
 Db 154940 GAGGAAGATGAAATTGGACATAGAGAAAGAGAGAAACATGTGGCTTGGGA 154881

Qy 179 GTGGAAGAGCGGATTTCAGTGGAAAGGATACTCAATGCTTATGGAAATAAT 238
 Db 154880 GCTGAAGGGAGTTTCTAAACATAGAAGGGCCATCAGGGTTAACAGCAAGAA 154821

Qy 239 CCAAAAGTAAACCTGGAAATGGATT 270
 Db 154820 CATAAAATTTGATCATATAAGGCATT 154789

Query Match 12.1%; Score 39.8; DB 4; Length 601;
 Best Local Similarity 51.4%; Pred. No. 0.27; Mismatches 87; Indels 0; Gaps 0;
 Matches 92; Conservative 0; Other INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (163355) .. (163385)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (191969) .. (191989)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (191955) .. (191995)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (231580) .. (231580)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (234587) .. (234587)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (234220) .. (234220)
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 NAME/KEY: misc_feature
 LOCATION: (234514) .. (234514)
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 NAME/KEY: misc_feature
 LOCATION: (23420) .. (23420)
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 NAME/KEY: misc_feature
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 NAME/KEY: misc_feature
 LOCATION: (30911) .. (30911)
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 NAME/KEY: misc_feature
 LOCATION: (30998) .. (30998)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (312837) .. (312837)
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 NAME/KEY: misc_feature
 LOCATION: (312593) .. (312593)
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 NAME/KEY: misc_feature
 LOCATION: (555167) .. (555167)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (555241) .. (555241)
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 NAME/KEY: misc_feature
 LOCATION: (600992) .. (600992)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (622708) .. (622708)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (65701) .. (65701)
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 OTHER INFORMATION: n equals a, t, c, or g
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 LOCATION: (103598) .. (103598)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (146948) .. (146948)

RESULT 11
 US-08-916-421B-1/C
 Sequence 1, Application US/08916421B
 GENERAL INFORMATION:
 Patent No. 6503729
 APPLICANT: Built et al.
 TITLE OF INVENTION: Complete Genome Sequence of the Methanogenic Archaeon, Methanococcus jannaschii
 CURRENT APPLICATION NUMBER: US/08/916,421B
 CURRENT FILING DATE: 1997-08-22
 PRIOR APPLICATION NUMBER: US/60/024,428
 PRIOR FILING DATE: 1996-08-22
 NUMBER OF SEQ ID NOS: 3
 SOFTWARE: PatentIn version 3.1
 SEQ ID NO 1
 LENGTH: 1664976
 TYPE: DNA
 ORGANISM: Methanococcus jannaschii
 FEATURE:
 NAME/KEY: misc_feature
 LOCATION: (28222) .. (28222)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (28257) .. (28258)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (84773) .. (84773)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (84808) .. (84808)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (84812) .. (84812)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (98120) .. (98120)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (98159) .. (98159)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (98239) .. (98239)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (98266) .. (98266)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (98373) .. (98373)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (103598) .. (103598)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (779455) .. (779455)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc_feature
 LOCATION: (146948) .. (146948)

NAME/KEY: misc feature
 LOCATION: (855739)..(855539)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (871619)..(871619)
 OTHER INFORMATION: n equals a, t, c, or g
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 LOCATION: (1087830)..(1084810)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1096846)..(1096846)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1119881)..(1119881)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1130881)..(1130881)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1310988)..(1310988)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1313224)..(1313224)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1349473)..(1349473)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1349491)..(1349491)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1470091)..(1470091)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1563020)..(1563020)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1602912)..(1602912)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1603734)..(1603734)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1637938)..(1637938)
 OTHER INFORMATION: n equals a, t, c, or g
 NAME/KEY: misc feature
 LOCATION: (1664854)..(1664855)
 OTHER INFORMATION: n equals a, t, c, or g
 US-08-916-421B-1

Query Match 11.9% Score 39.2; DB 4; Length 1664976;
 Best Local Similarity 50.5%; Pred. No. 5.8;
 Matches 95; Conservative 0; Gaps 0;

Qy	141	AAGAAAGAGAGATGATCTCGAGAANGGATGTTGAAGTGGAAANGCATTAAAGATAACTTTGTAG 1641830
Db	1641839	AAGCCCTTAAGTTCTTGAAAANTGGATAAAGACATTAAAGATAACTTTGTAG 1641830
Qy	201	TGATTGGAGGATACTCATGGTATTGGAAAATACCAAAAAAAGTTAACCTTGG 260
Db	1641839	AATTTTAAAGGATAATTGGGATATAAGACATTAATTCGAAAGTTGAAATAGTC 1641770
Qy	261	AATGGGAAATTGGAATTCATCTTGTGGAAATGCTTAATGCAATCAAATGTC 320
Db	1641769	AAAAAGAACTAAATAATGAAATAAGAAATTATGAAATTATGAAATTTACCTAAAGAAA 1641702
Qy	321	TTATAAA 328
Db	1641709	TTAGAGAA 1641702

RESULT 12
 US-09-652-570-1/c

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NAME/KEY: misc_feature
LOCATION: (191989) .. (191989)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (191985) .. (191985)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (231980) .. (231980)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (234220) .. (234220)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (234187) .. (234187)
OTHER INFORMATION: n equals a, t, c, or g
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NAME/KEY: misc_feature
LOCATION: (234014) .. (234014)
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NAME/KEY: misc_feature
LOCATION: (309418) .. (309418)
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NAME/KEY: misc_feature
LOCATION: (309398) .. (309398)
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FEATURE:
NAME/KEY: misc_feature
LOCATION: (312837) .. (312837)
OTHER INFORMATION: n equals a, t, c, or g
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NAME/KEY: misc_feature
LOCATION: (312993) .. (312993)
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FEATURE:
NAME/KEY: misc_feature
LOCATION: (553767) .. (553767)
OTHER INFORMATION: n equals a, t, c, or g
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LOCATION: (657081) .. (657081)
OTHER INFORMATION: n equals a, t, c, or g
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LOCATION: (657203) .. (657203)
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LOCATION: (674435) .. (674435)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature

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LOCATION: (682442) .. (682442)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (713652) .. (713652)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (741684) .. (741684)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (779455) .. (779455)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (779676) .. (779676)
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FEATURE:
NAME/KEY: misc_feature
LOCATION: (855539) .. (855539)
OTHER INFORMATION: n equals a, t, c, or g
FEATURE:
NAME/KEY: misc_feature
LOCATION: (871619) .. (871619)
OTHER INFORMATION: n equals a, t, c, or g
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NAME/KEY: misc_feature
LOCATION: (1084830) .. (1084830)
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FEATURE:
NAME/KEY: misc_feature
LOCATION: (1096846) .. (1096846)
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NAME/KEY: misc_feature
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NAME/KEY: misc_feature
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OTHER INFORMATION: n equals a, t, c, or g
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LOCATION: (1310988) .. (1310988)
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NAME/KEY: misc_feature
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NAME/KEY: misc_feature
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OTHER INFORMATION: n equals a, t, c, or g
Query Match Score 11.9%; Score 39.2%; DB 4; Length 1664976;
Best Local Similarity 50.5%; Pred. No. 5.8;
Matches 95; Conservative 0; Mismatches 93; Indels 0; Gaps 0;
Qy 141 AAGAAAGAAGAGATGATCTCGAAGAACGGATTTGAAAGCCATTTCACG 200
Db 1641889 AAGRCCTTAAAGATTCTTGTAAAAAATGATAAGCATTTGTATG 1641830
Qy 201 TGATTTGAGGATACTGGATTTGGAAATGAACTTGAATTTGAACTTG 260
Db 1641829 AATTTTAAAGGATAATGGAAATAAGACATAATCTGAAAGTTGATG 1641770
Qy 261 AAATGGAATGGAAATCATCTAAATGGAAATGTCATTAAGCTAAATGTC 320
Db 1641769 AATAGGAGTTAAATGAAATGAAATGAAATGAAATGAAATGAA 1641710
Qy 321 TTAAAAA 328

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RESULT 14
US-09-'790-988-1
; Sequence 1, Application US/09790988
; Patent No. 6632935
; GENERAL INFORMATION:
; APPLICANT: SHIGENOBU, SHUJI
; APPLICANT: WATANABE, HIDEMI
; APPLICANT: HATTORI, MASAHIRI
; APPLICANT: SAKAKI, YOSHITAKU
; TITLE OF INVENTION: GENOME DNA OF BACTERIAL Symbiont OF APHIDS
; FILE REFERENCE: 08136/0159
; CURRENT APPLICATION NUMBER: US/09/790, 988
; CURRENT FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: JP2000-107160
; PRIOR FILING DATE: 2000-04-07
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 640681
; TYPE: DNA
; ORGANISM: Buchnera sp.

US-09-'790-988-1
Query Match Score 37.4; DB 4; Length 640681
Best Local Similarity 51.5%; Pred. No. 13; Mismatches 81; Indels 8
Matches 86; Conservative 0; Missmatches 81; Indels 8

Qy 125 GGAGAGATGCCATGAGAAGAGATGATCTCGAGAAAGGGATGTTT
Db 279356 GAAAAAAATCAGATCCAAAATAATCATAAATAATGACATGTAAAT

Qy 185 AAGCGATTTTTCAGTGGATGGAGGAACTCAATGGTATTGGAAAA
Db 279416 AAAAATTAAATTCAATTTTAGAATCAAACAACTGAAGATCTGAGAAAAA

Qy 245 AAAGTTAAAACCTTGGAAATGGATTGGAATCACTCAATGTGAAAT 291
Db 279476 AAGAAAGAAATAGTGGAAAAGAATAGTATACTATAATGATT 279

RESULT 15
US-08-602-010A-5/c
; Sequence 5, Application US/08602010A
; Patent No. 5751235
; GENERAL INFORMATION:
; APPLICANT: Hanes, Elizabeth J.
; APPLICANT: Frank, Roxann S.
; TITLE OF INVENTION: RECOMBINANT CANINE HERPESVIRUSES
; NUMBER OF SEQUENCES: 50
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sheridan Ross & McIntosh
; STREET: 1700 Lincoln Street, Suite 3500
; CITY: Denver
; STATE: Colorado
; COUNTRY: U.S.A
; ZIP: 80203
; COMPUTER READABLE FORM:
; MEDIUM TYPE: FLOPPY disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/602,010A
; FILING DATE: February 15, 1996
; CLASSIFICATION: 135
; ATTORNEY/AGENT INFORMATION:
; NAME: Connell, Gary J.
; REGISTRATION NUMBER: 32,020
; REFERENCE/DOCKET NUMBER: 2618-46
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 303/863-9700
; TELEX/FAX: 303/863-0223
; INFORMATION FOR SEQ ID NO: 5:

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SEQUENCE CHARACTERISTICS:
LENGTH: 1176 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1176
us-08-602-010A-5

Query Match 11.2%; Score 36.8; DB 1; Length 1176;
Best Local Similarity 58.0%; Pred. No. 2.2;
Matches 65; Conservative 0; Mismatches 47; Indels 0; Gaps 0;
Qy 102 TCAACTTATCTCTCTGAGGGAAAGAGAGATGCCATTGAGAAGAGATGATCTCG 161
Db 781 TCCAAATATCATTCCTCTGAGGAATAATGAGATGAGCTGAAGAAGGGATGGAGG 722
Qy 162 AGAACGGATGTGAAGTGGAAAAGCATTTCAGTGATTGGAAAGGAT 213
Db 721 AGGAGGTGAGATGAGATATAGGGACATCTGGAGGCCTTCAGTT 670

Search completed: March 31, 2005, 18:26:04
Job time : 105 secs

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OM nucleic - nucleic search, using bw model

Run on: March 31, 2005, 14:45:33 ; Search time 1389 Seconds

(without alignments)

Title: US-10-719-623A-15

Perfect score: 329

Sequence: 1 cccctccaggctgtctacatt.....catcaaatgtcttataaaaa 329

Scoring table: IDENTITY_NUC

Gapop 10.0 , Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing First 45 summaries

Database : GenEmbl:*

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1: 9b_ba:*
2: 9b_hcg:*
3: 9b_in:*
4: 9b_cm:*
5: 9b_ov:*
6: 9b_pac:*
7: 9b_ph:*
8: 9b_pl:*
9: 9b_pr:*
10: 9b_ro:*
11: 9b_stb:*
12: 9b_sy:*
13: 9b_ur:*
14: 9b_vl:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match Length	DB ID	Description
1	329	100.0	329	5 RTTEMPORG	Y09395 R. temporari AR176040 Sequence BD268889 Transgeni BD063212 Antimicro S69903 Ranalexin-a Y09393 R. temporari AR176038 Sequence BD063210 Antimicro Y09394 R. temporari AR176039 Sequence BD063211 Antimicro X77831 R. esculenta U2393 Rana rugosa AJ427746 Rana pipi AJ414584 Rana pipi AJ427747 Rana pipi AJ583066 Rana temp X77833 R. esculenta AJ251567 Rana temp
2	329	100.0	329	6 AR176040	
3	329	100.0	329	6 BD268889	
4	329	100.0	329	6 BD063212	
5	212.8	66.2	347	5 S69903	
6	212.8	64.7	323	5 RTTEMPORG	
7	212.8	64.7	323	6 AR176038	
8	212.8	64.7	323	6 BD063210	
9	203.8	61.9	356	5 RTTEMPORG	
10	203.8	61.9	356	6 AR176039	
11	203.8	61.9	356	6 BD063211	
12	195.8	59.5	363	5 REBRE1E	
13	165.4	50.3	318	5 RR022393	
14	149.6	45.5	294	5 RP1427746	
15	125.4	38.1	362	5 RP1414584	
16	120	36.5	317	5 AJ427747	
17	119.8	36.4	310	5 AJ583066	
18	104	31.6	384	5 REBSC1B	
19	101.2	30.8	339	5 RTE251567	

ALIGNMENTS

RESULT 1	RTTEMPORG	329 bp mRNA precursor	mRNA	linear	VRT 02-OCT-2003
LOCUS	R temporaria mRNA				
DEFINITION					
ACCESSION	Y09395				
VERSION	Y09395.1	GI:1771591			
KEYWORDS					
SOURCE	Rana temporaria (common frog)				
ORGANISM	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butelostomii; Amphibia; Batrachia; Anura; Ranidae; Ranidae; Rana; Rana.				
REFERENCE	1. Siumaco,M., Mignogna,G., Canofeni,S., Miele,R., Mangoni,M.I. and Barra,D. Temporins, antimicrobial peptides from the European red frog Rana temporaria. Eur. J. Biochem. 242 (3), 788-792 (1996)				
AUTHORS	Barra,D.				
TITLE	Temporins, antimicrobial peptides from the European red frog Rana temporaria				
JOURNAL	Eur. J. Biochem.	242 (3)	788-792	(1996)	
MEDLINE	97175050				
PUBMED	9022710				
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Location/Qualifiers					
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	/tissue_type="skin"				
	/clone_id="RP1-17"				
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	/function="antibacterial activity"				
	/codon_start=1				
	/evidence=experimental				
	/product="temporin G precursor"				
	/protein_id="CAA70564.1."				
	/db_xref="GI:1771592"				
	/db_xref="GOA:P79875"				
	/db_xref="UniProt/Swiss-Prot:P79875"				

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mat_peptide	/evidence=not_experimental	Qy	181	GAAAGCGATTTCAGTGTGATGGAAAGGATACTCAATGGTATTGGAAAATTAACC 240
	191..229	Db	181	GAAAGCGATTTCAGTGTGATGGAAAGGATACTCAATGGTATTGGAAAATTAACC 240
/note="amidated C-terminus; post-translational modification"	/evidence=experimental	Qy	241	AAAAAAGTTAAAATCTTGGAATGGAAATTCATCAACTTATCTGTGAAATTGTCATTAG 300
ORIGIN		Db	241	AAAAGTTAAAATCTTGGAATGGAAATTCATCAACTTATCTGTGAAATTGTCATTAG 300
Query Match	Score 329; DB 5; Length 329;	Qy	301	CTAAATGCACATCAATGTCITTAATAAA 329
Best Local Similarity	100.0%; Pred. No. 1..6e-55;	Db	301	CTAAATGCACATCAATGTCITTAATAAA 329
Matches	329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;			
Qy	1	CCCCCTCCAGCTGTCTCATACCAACTGAAACCCGAGCCAAAGATGTTCAAC 60	RESULT 3	
Db	1	CCCCCTCCAGCTGTCTCATACCAACTGAAACCCGAGCCAAAGATGTTCAAC 60	BD268889	329 bp DNA linear PAT 17-JUL-2003
Qy	61	CITGAAAGAAATCCTCTTACCTTCTTCCCTGGACACATCACTTATCTCTGTGA 120	LOCUS	Transgenic plant having tolerance to wide-area pathogen.
Db	61	CITGAAAGAAATCCTCTTACCTTCTTCCCTGGACACATCACTTATCTCTGTGA 120	DEFINITION	BD268889
Qy	121	GGAGAGAGAGATGCCATGAGAAAGAGATGATCTCGAGAAAGGGATGTGAAAT 180	VERSION	BD268889.1 GI:33078657
Db	121	GGAGAGAGAGATGCCATGAGAAAGAGATGATCTCGAGAAAGGGATGTGAAAT 180	KEYWORDS	JP 200238828-A/2
Qy	181	GGAAAGCGATTTCAGTGTGATGGAAAGGATACTCAATGGTATTGGAAAATTAACC 240	SOURCE	Rana temporaria (common frog)
Db	181	GGAAAGCGATTTCAGTGTGATGGAAAGGATACTCAATGGTATTGGAAAATTAACC 240	ORGANISM	Rana temporaria
Qy	181	GGAAAGCGATTTCAGTGTGATGGAAAGGATACTCAATGGTATTGGAAAATTAACC 240	AMPHIBIA	Batrachia; Anura; Craniata; Vertebrata; Butelostomi; Rana; Rana
Db	181	GGAAAGCGATTTCAGTGTGATGGAAAGGATACTCAATGGTATTGGAAAATTAACC 240	REFERENCE	1 (bases 1 to 329)
Qy	181	GGAAAGCGATTTCAGTGTGATGGAAAGGATACTCAATGGTATTGGAAAATTAACC 240	AUTHORS	Misra, S. and Kay, W.W.
Db	181	GGAAAGCGATTTCAGTGTGATGGAAAGGATACTCAATGGTATTGGAAAATTAACC 240	TITLE	Transgenic plant having tolerance to wide-area pathogen
Qy	241	AAAAAAGTTAAAATCTTGGAATGGAAATTCATCAACTTATCTGTGAAATTGTCATTAG 300	JOURNAL	PATENT: JP 200238828-A/2 19-NOV-2002 UNIVERSITY OF VICTORIA INNOVATION AND DEVELOPMENT CORP
Db	241	AAAAAAGTTAAAATCTTGGAATGGAAATTCATCAACTTATCTGTGAAATTGTCATTAG 300	COMMENT	OS Rana temporaria (european common frog)
Qy	301	CTAAATGCACATCAATGTCITTAATAAA 329	PN	JP 200238828-A/2
Db	301	CTAAATGCACATCAATGTCITTAATAAA 329	PD	JP 20000605754
Qy	301	CTAAATGCACATCAATGTCITTAATAAA 329	PR	16-MAR-2000 JP 20000605754
Db	301	CTAAATGCACATCAATGTCITTAATAAA 329	PI	17-MAR-1999 US 60/1425072
Qy	301	CTAAATGCACATCAATGTCITTAATAAA 329	PC	SANTOSH MISRA, WILLIAM W KAY PC A01H/00, C07K14/415 // C12N5/10, C12N15/09, C12N15/00, C12N5/00 CC
Db	301	CTAAATGCACATCAATGTCITTAATAAA 329	COMMENT	Rana temporaria (european common frog)
Qy	301	CTAAATGCACATCAATGTCITTAATAAA 329	FEATURES	Location/Qualifiers
Db	301	CTAAATGCACATCAATGTCITTAATAAA 329	source	1..329
Qy	1	CCCCCTCCAGCTGTCTCATACCAACTGAAACCCGAGCCAAAGATGTTCAAC 60	source	/organism="Rana temporaria"
Db	1	CCCCCTCCAGCTGTCTCATACCAACTGAAACCCGAGCCAAAGATGTTCAAC 60	mol_type="genomic DNA"	/mo_type="genomic DNA"
Qy	1	CCCCCTCCAGCTGTCTCATACCAACTGAAACCCGAGCCAAAGATGTTCAAC 60	db_xref="taxon:8407"	/db_xref="taxon:8407"
ORIGIN				
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified. Unknown. Unknown.			
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Qy	1	
AUTHORS	Antimicrobially active polypeptides	Db	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Qy	1	
FEATURES	1..329	Db	1	
VERSION	Location/Qualifiers	Qy	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Db	1	
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REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.1 GI:17917339	Best Local Similarity	100.0%; Pred. No. 1..6e-65;	
KEYWORDS	Source Location/Qualifiers	Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ORGANISM	Unclassified.	Qy	1	
REFERENCE 1	(bases 1 to 329) Barra, D. and Simmaco, M.	Db	1	
AUTHORS	Antimicrobially active polypeptides	Qy	1	
TITLE	Patent: US 6310176-A 18-30-Oct-2001;	Db	1	
FEATURES	1..329	Qy	1	
VERSION	Location/Qualifiers	Db	1	
KEYWORDS	/organism="unknown" /mol_type="unassigned DNA"	Qy	1	
ORGANISM		Db	1	
REF ID: AR176040	LOCUS AR176040 Sequence 18 From patent US 6310176. DNA	Query Match	100.0%; Score 329; DB 6; Length 329;	
DEFINITION AR176040	VERSION AR176040.			

LOCUS	S69903	347 bp	mRNA	linear	VRT 23-SEP-1994
DEFINITION	Ranalexin=antimicrobial peptide homolog [Rana catesbeiana=bullfrog, metamorphic tadpoles, skin cells, mRNA, 347 nt].				
ACCESSION	S69903				
VERSION	S69903.1				
KEYWORDS	Rana catesbeiana (bullfrog)				
SOURCE	Rana catesbeiana				
ORGANISM	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana; Rana				
KEYWORDS	Aquarana				
DEFINITION	Rana catesbeiana				
ACCESSION	BD063212	329 bp	DNA	linear	PAT 27-AUG-2002
KEYWORDS	Antimicrobially active polypeptides.				
REFERENCE	BD063212				
AUTHORS	JP 2001506495-A/3.				
TITLE	Rana temporaria (common frog)				
JOURNAL	Organia temporaria				
ORGANISM	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana; Rana				
KEYWORDS	1 (bases 1 to 329)				
REFERENCE	Barra, D and Simmaco, M.				
AUTHORS	Antimicrobially active polypeptides				
TITLE	Patent: JP 2001506495-A 3 22-MAY-2001;				
JOURNAL	SBL VACCIN AB				
COMMENT	OS Rana temporaria				
	PN JP 2001506495-A/3				
	PD 22-MAY-2001				
	PP 12-DEC-1997 JP 1998526559				
	PR 13-DEC-1996 SE 9604593-5				
	PI DONNATELLA BARBA, MAURIZIO SIMMACO				
	PC COTK4/46, COTK/08,461K3/5/6				
	CC CDNA clone Rt-17				
	FH Key				
	FT CDS				
	FT mat peptide				
	FT polyA signal				
	FT				
FEATURES	Location/Qualifiers				
source	1. .329				
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Qy	1 CCCCTCGCTCTCATTCATTCTCATAACCAACTGAAACCAAGCCGAGCCAAAGATGTTCAC	60			
Db	1 CCCCTCCTCGCTCTCATTCATTCTCATAACCAACTGAAACCAAGCCGAGCCAAAGATGTTCAC	60			
Qy	61 CTGAAAGAAATCCCTCTTACTCCCTTCTTCTTGAACTCATCCTTATCTCTGTGA	120			
Db	61 CTGAAAGAAATCCCTCTTACTCCCTTCTTCTTGAACTCATCCTTATCTCTGTGA	120			
Qy	121 GGAGAGAGATGCCGATGCCGAGAAAGAGATGATCTCGAGAAACGGATGTGAGT	180			
Db	121 GGAGAGAGATGCCGATGCCGAGAAAGAGATGATCTCGAGAAACGGATGTGAGT	180			
Qy	181 GGAAAAGCCTTTTCAGCTTGTGAGCATCTCATGTTGGAAATAAACCA	240			
Db	181 GGAAAAGCCTTTTCAGCTTGTGAGCATCTCATGTTGGAAATAAACCA	240			
Qy	241 AAAAAAGTTAAACTTGGAAATGGAATCATCTTAATGTGGAATGTCAATTAG	300			
Db	241 AAAAAAGTTAAACTTGGAAATGGAATCATCTTAATGTGGAATGTCAATTAG	300			
Qy	301 CTAATGGCACATCAAATGCTTATAAAA	329			
Db	301 CTAATGCACATCAAATGCTTATAAAA	329			

LOCUS	RTEMPORB	323 bp	mRNA	linear	VRT 02-OCT-2003	Db	237	AATGGATTGAAATCATCTGATGTTAATTCATTAGCTAAATGCCAACAGATGCTC	296
DEFINITION	R temporaria mRNA for temporin B precursor.								
ACCESSION	Y09393								
VERSION	Y09393_1								
KEYWORDS	temporin B.								
SOURCE	Rana temporaria (Common frog)								
ORGANISM	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranoidea; Ranae; Rana.								
REFERENCE									
AUTHORS	Simmaco, M., Mignogna, G., Canofeni, S., Miele, R., Mangoni, M.L. and Barra, D.								
TITLE	Temporins, antimicrobial peptides from the European red frog Rana temporaria								
JOURNAL	Bur. J. Biochem. 242 (3), 788-792 (1996)								
MEDLINE	97175050								
PUBMED	9022710								
REPERENCE	2 (bases 1 to 323)								
AUTHORS	Barra, D.								
TITLE	Direct Submission								
JOURNAL	Submitted (11-NOV-1996) D. Barra, Universita La Sapienza, Dipartimento Di Scienze Biochimiche, Piazzale Aldo Moro 5, 00185 Roma, ITALY								
FEATURES	Location/Qualifiers								
	1..323								
source	/organism="Rana temporaria"								
	/mol_type="mRNA"								
	/db_xref="taxon:8407"								
	/tissue_type="skin"								
	/clone_Tib="TR-5"								
CDS	37..222								
	/function="antibacterial activity against gram-positive bacteria"								
	/codon_start=1								
	/evidence=experimental								
	/product="temporin B precursor"								
	/protein_id="CA0A70562_1"								
	/db_xref="GI:1771590"								
	/db_xref="GO: P79874"								
	/db_xref="Uniprot_Swiss-Prot:P79874"								
	/translation="MFLKPLKSLLILFPGTINSILCEERNEBEERDEPDRDVQEKRLLPVGNLKLSSLGK"								
mat_peptide	175..219								
	/product="temporin B"								
	/note="amidated C-terminus; post-translational modification"								
	/evidence=experimental								
sig_peptide	37..103								
	/evidence=not_experimental								
ORIGIN									
	Query Match Score 64.7%; Best Local Similarity 83.4%; Matches 25; Conservative 0; Mismatches 42; Indels 9; Gaps 1;								
	Length 323; /mol_type="unassigned DNA"								
	ORIGIN								
	Query Match Score 64.7%; Best Local Similarity 83.4%; Matches 25; Conservative 0; Mismatches 42; Indels 9; Gaps 1;								
	Length 323; /mol_type="unassigned DNA"								
Qy	22	TCATAACCAACTGAACCACCGAGGCCAAAAGATGTTCACCTTGAAAGAAATCCCTCTTACT	81	RESULT 8					
Db	6	TCTGACCAACTGAACCACCGAGGCCAAAAGATGTTCACCTTGAAAGAAATCCCTCTTACT	65	LOCUS	BD063210	Antimicrobially active polypeptides.			
Qy	82	CCTTTCTCTCTGGACCCCAACTTATCTCTGTGAAAGAGATGCCATGA	141	DEFINITION	BD063210				
Db	66	CCTCTTTCTCTGGACCCCAACTTATCTCTGTGAAAGAGATGCCATGA	125	ACCESSION	BD063210..1	GI:22608813			
Qy	142	AGAAAGAGATGATCTCGAAAGAGATGTTGAAAGGATTTTCAGT	201	VERSION	JP 2001506495-A/1	Rana temporaria (common frog)			
Db	126	AGAAAGAGATGAAATCATCTATGTTGAAATGCCATTAATGCTAAATGCT	185	KEYWORDS	Rana temporaria	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Ranidae; Ranidae; Ranae; Rana.			
Qy	202	GATTGGATTGCAATGTTGAAATGCTAAATGCTAAATGCTAAATGCT	261	SOURCE	1 (bases 1 to 323)	Barra, D. and Simmaco, M.			
Db	186	TGTGGAAACCTGCTTAAAGCTTAAATGCTAAATGCTAAATGCT	236	ORGANISM	Antimicrobially active polypeptides.				
Qy	237	AATGGGAATTGCAATCATCTATGTTGAAATTCATTAGCTAAATGCT	296	REFERENCE	JP 2001506495-A/1 22-MAY-2001	JOURNAL			
Db	297	TATTTAA 304		AUTHORS	Barra, D. and Simmaco, M.				
Qy	322	TATAAAA 329		TITLE	Antimicrobially active polypeptides.				
Db	297	TATTTAA 304		DEFINITION					
Qy	237	AATGGGAATTGCAATCATCTATGTTGAAATTCATTAGCTAAATGCT	321	ACCESSION					
Db	297	TATTTAA 304		VERSION					
Qy	202	GATTGGAAAGATACTCAATGCTTAACTTGTGAAAGAGATTTTACCA	185	KEYWORDS					
Db	186	TGTGGAAACCTGCTTAAAGCTTAAATGCTAAATGCTAAATGCT	236	SOURCE					
Qy	262	AATGGAAATTGCAATCATCTATGTTGAAATGCTAAATGCTAAATGCT	321	ORGANISM					
Db	297	TATTTAA 304		REFERENCE	JP 2001506495-A/1 22-MAY-2001	JOURNAL			
Qy	297	TATTTAA 304		AUTHORS	Barra, D. and Simmaco, M.				
Db	297	TATTTAA 304		TITLE	Antimicrobially active polypeptides.				

COMMENT	SBL VACCIN AB OS Rana temporaria PN JP 2001506495-A/1	FEATURES	Dipartimento Di Scienze Biochimiche, Piazzale Aldo Moro 5, 00185 Roma, Italy Location/Qualifiers
PD	22-MAY-2001	source	1 .356 /organism="Rana temporaria" /mol_type="mRNA" /db_xref="taxon:8407" /taxon type="skin" /clone_id="RT-5"
PF	12-DEC-1997 JP 1998526559		
PR	13-DEC-1996 SE 9604593-5		
PI	DONNATELLA BARRA, MAURIZIO SIMMACO		
PC	C07K7/08, A61K33/56		
CC	CDNA Clone RT-5		
FH	Key		
FT	CDS (37) . .(222)		
FT	mat peptide (175) . .(213)		
FT	polyA signal (307) . .(311).		
FEATURES	Location/Qualifiers		
source	1 .323 /organism="Rana temporaria" /mol_type="Genomic DNA" /db_xref="taxon:8407"		
ORIGIN	Query Match Score 64.7%; Best Local Similarity 83.4%; Matches 257; Conservative 0; Mismatches 42; Indels 9; Gaps 1;	sig_peptide mat_peptide	79 .144 /evidence-not_experimental 217 .252 /product="temporin H" /evidence-experimental
Qy	22 TCTAACCACTGAACCAAGCAGCCAAAGTGTTCACITGAGAAATCCCTCTTACT 81		
Db	6 TCTGAGCCAATCTGAAACCACCGAGCCCAGGCCAAAGATGTCACITGAGAAATCCCTCTTACT 65		
Qy	82 CCTTTCTCTGGGACCATCACATTCTCTGTGAGGAAGAGGATGCGCATGA 141	ORIGIN	Query Match Score 61.9%; Best Local Similarity 81.7%; Matches 267; Conservative 0; Mismatches 42; Indels 18; Gaps 2;
Db	66 CCTCTTCTCTGGGACCATCACATTCTCTGTGAGGAAGAGGATGCGCATGA 125		
Qy	142 AGAAAGAGAGATGATCTGAGAAGGATCTGAGTGAAGGATCAAAGCATTTTCAGT 201		
Db	126 AGAAAGAGAGATGAAAGGATCTGAGAAGGATCTGAGTGAAGGATCAAAT 185		
Qy	202 GATGGGAGGATACTCACTGATTGGAAATAACGCTTAATGGAAACTTTGGA 261		
Db	186 TGTGAAACCTGCTGAGAGCTTGTTGGAAATAACCA-----AAAATGTTAG 236		
Qy	262 AATGGAAATTGAAATCATCTTAATGTGAAATGTCATTAGCTTAATGGACATCAAATGTC 321		
Db	237 AATGGAAATTGAAATCATCTGTGAAATCATCTGTGAAATCATCTGTGAAATGAGATGTC 296		
Qy	322 TATAAAA 329		
Db	297 TATTAAA 304		
RESULT 9		RESULT 10	
RTTEMPORH	RTTEMPORH 356 bp mRNA for temporin H precursor.	AR176039	356 bp DNA linear PAT 17-DEC-2001
LOCUS	R.temporary mRNA for temporin H precursor.	LOCUS	Sequence 16 from patent US 6310176.
DEFINITION	R.temporary mRNA for temporin H precursor.	ACCESSION	AR176039
ACCESSION	Y09394	VERSION	AR176039.1 GI:17917338
VERSION	Y09394.1 GI:1771593	KEYWORDS	Unknown.
KEYWORDS	temporin H.	SOURCE	Unclassified.
SOURCE	Rana temporaria (common frog)	ORGANISM	1 (bases 1 to 356)
ORGANISM	Rana temporaria Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Rana; Rana;	REFERENCE	Barra,D. and Simmaco,M.
REFERENCE	1 Simmaco,M., Mignogna,G., Canofeni,S., Miele,R., Mangoni,M.L. and Barra,D.	AUTHORS	Antimicrobially active polypeptides
AUTHORS	Temporins, antimicrobial peptides from the European red frog Rana	TITLE	Patent: US 6310176 A 16-30-OCT-2001;
TITLE	temporaria	JOURNAL	Submitted (11-NOV-1996) D. Barra, Universita La Sapienza,
JOURNAL	MEDLINE	PUBMED	
MEDLINE	9175050	9022710	
PUBMED	2 (bases 1 to 356)	REFERENCE	
REFERENCE	Barra,D.	AUTHORS	
AUTHORS	Direct Submission	TITLE	
TITLE		JOURNAL	
JOURNAL		FEATURES	

Best Local Similarity 80.1%; Pred. No. 7.5e-28; Matches 270; Conservative 0; Mismatches 57; Indels 10; Gaps 3;		Best Local Similarity 76.6%; Pred. No. 7.5e-28; Matches 232; Conservative 0; Mismatches 61; Indels 10; Gaps 2;	
Qy 3 CCPCCAGGTGTCACATCTCATACCACTGACCACCCGACCCAAAGATTTCACTT 62	Qy 27 ACCACATGAAACCAGGCCAACGGTTCACCTTGAAAGATTCCTTACTCCPTT 86	Db 7 CTCAGCTATCTATCTCCGACCACTGACCATGTCAGTCAAGATTTCACTT 66	Db 9 ACCACATGAACTACGAAACCCAAGATTCCTGAAAGATTCCTGACTCCPTT 68
Qy 63 TGAAGAAATCCCTTACTCCTTCTGACCACTGAAACTTATCTCTGTGAGG 122	Qy 87 TCCTCCTGGACCATCACCTATCTCTGAGGAGAGAGATGCCGATGAAGAAA 146	Db 67 TGAAGAAATCCCTTACTCCTTCTGACCACTGAAACTTATCTCTGTGAGG 126	Db 69 TCCTCCTGGACCATCACCTATCTCTGAGGAGAGAGATGCCGATGAAGAG 128
Qy 123 AAGAGAGATGCCAT--GAGAAGAGAGATGATGATGTCAGAAGGGATGTGAG 179	Qy 147 GAGAGATGATGTCAGAAGGGATGTGAGTGAAGTGCATTTCAGTGTATTG 206	Db 127 AAGAGAGATGCCATGCCGATGAGAGAAAGAGAGATGTCAGTGTGAG 186	Db 129 AAAAAGAGATGTTGAG--TGAAAAAACGATTTTGGAGGACTCTCAAGTGGCTTC 186
Qy 180 TGAAAAGGATTTCCAGTCAAGTCAAGTCAATGGATAAGGGAAA--- 235	Qy 207 GAGGAGTACTCATGGATTTGGAAATAACCAAAAGGTTAAACTTGAAATGG 266	Db 187 TGAAAAGGATTTCCAGTCAAGTCAATGGATAAGGGAAAATAT 246	Db 187 TAGGTGCTGCCATCAGTTTGTGCAATTACCAAAAGTGTAAACCTT---A 238
Qy 236 TAACCAAAAAGGTTAAACCTGGAAA--TGGAATTGAAATCATCTTAATGGAAATG 292	Qy 267 AATTGAAATCATCTTAATGGAAATGTCATTAGTGTGAAATGTCATTGCTTAA 326	Db 247 TTGTAAATAACCGAAATGTTGAAACCTTGAAATCATCTGATGTGGAAA 306	Db 239 ATTGAAATCATCTGATGTGGAAATATCATCTGATGTGGAAA 298
Qy 293 TCATTTAGCTTAATGCACTCATCAATGTCTTATAAAA 329	Qy 327 AAA 329	Db 307 TCATTTAGCTTAATACACATCAGATGTCTTATAAAA 343	Db 299 AAA 301
<hr/>			
RESULT 14 RRU22393	RUU22393 Rana rugosa gaegurin 5 mRNA, complete cds. linear VRT 28-MAR-1995	RPI427746 LOCUS Rana pipiens mRNA for brevinin 1Pb.	VRT 12-MAR-2003
DEFINITION Rana rugosa gaegurin 5 mRNA, complete cds.	DEFINITION Rana pipiens mRNA for brevinin 1Pb.	DEFINITION Rana pipiens AJ427746	DEFINITION AJ427746
ACCESSION U22393	ACCESSION AJ427746	ACCESSION AJ427746	ACCESSION AJ427746
VERSION GI:733137	VERSION GI:20145828	VERSION GI:20145828	VERSION GI:20145828
KEYWORDS Rana rugosa	KEYWORDS antimicrobial peptide; brevinin 1Pb;	KEYWORDS Rana pipiens	KEYWORDS Rana pipiens
SOURCE Rana rugosa	SOURCE Rana pipiens	SOURCE Rana pipiens	SOURCE Rana pipiens
ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana; Pantherana.	ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana; Pantherana.	ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana; Pantherana.	ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Neobatrachia; Ranidae; Rana; Pantherana.
REFERENCE 1 (bases 1 to 318)	REFERENCE 1 (bases 1 to 294)	REFERENCE 1 (bases 1 to 294)	REFERENCE 1
AUTHORS Lee, J.Y., Moon, H.M. and Lee, B.J.	AUTHORS Chen, T., Parragher, S., Bjourson, A.J., Orr, D.F., Rao, P. and Shaw, C.	AUTHORS Chen, T., Parragher, S., Bjourson, A.J., Orr, D.F., Rao, P. and Shaw, C.	AUTHORS Chen, T., Parragher, S., Bjourson, A.J., Orr, D.F., Rao, P. and Shaw, C.
TITLE Molecular cloning of cDNAs encoding precursors of frog skin antimicrobial peptides from Rana rugosa	TITLE Granular gland transcriptomes in stimulated amphibian skin secretions	TITLE Granular gland transcriptomes in stimulated amphibian skin secretions	TITLE Granular gland transcriptomes in stimulated amphibian skin secretions
JOURNAL Unpublished	JOURNAL J. Biochem. 371, 125-130 (2003)	JOURNAL J. Biochem. 371, 125-130 (2003)	JOURNAL J. Biochem. 371, 125-130 (2003)
REFERENCE 2 (bases 1 to 318)	REFERENCE 2 (bases 1 to 294)	REFERENCE 2 (bases 1 to 294)	REFERENCE 2 (bases 1 to 294)
AUTHORS Park, J.M., Lee, J.Y., Moon, H.M. and Lee, B.J.	AUTHORS Parragher, S.M.	AUTHORS Parragher, S.M.	AUTHORS Parragher, S.M.
TITLE Direct Submission	TITLE Direct Submission	TITLE Direct Submission	TITLE Direct Submission
JOURNAL Institute for Mol. Biol. & Genet., Seoul National University, South Korea, 151-742	JOURNAL Submitted (10-JAN-2002) Farragher S.M., School of Biomedical Sciences, University of Ulster, Cromore Road, N. Ireland, UNITED KINGDOM	JOURNAL Submitted (10-JAN-2002) Farragher S.M., School of Biomedical Sciences, University of Ulster, Cromore Road, N. Ireland, UNITED KINGDOM	JOURNAL Submitted (10-JAN-2002) Farragher S.M., School of Biomedical Sciences, University of Ulster, Cromore Road, N. Ireland, UNITED KINGDOM
FEATURES source	FEATURES source	FEATURES source	FEATURES source
LOCATIONS/QUALIFIERS	LOCATIONS/QUALIFIERS	LOCATIONS/QUALIFIERS	LOCATIONS/QUALIFIERS
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/tissue_type="skin"	/tissue_type="skin"	/tissue_type="skin"	/tissue_type="skin"
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35..232 /functions="antimicrobial peptide"	35..232 /functions="antimicrobial peptide"	35..232 /functions="antimicrobial peptide"	35..232 /functions="antimicrobial peptide"
CDS /codon_start=1 /product="gaegurin 5"			
/protein_id="AA64412.1"	/protein_id="AA64412.1"	/protein_id="AA64412.1"	/protein_id="AA64412.1"
/db_xref="GI:733138"	/db_xref="GI:20145829"	/db_xref="GI:20145829"	/db_xref="GI:20145829"
ALFKVASKVLPVSFCAITKIC"	ALFKVASKVLPVSFCAITKIC"	ALFKVASKVLPVSFCAITKIC"	ALFKVASKVLPVSFCAITKIC"
mat_peptide 15..229 /product="gaegurin 5"			
/product="gaegurin 5"	/product="gaegurin 5"	/product="gaegurin 5"	/product="gaegurin 5"
polyA_signal 302..307	polyA_signal 302..307	polyA_signal 302..307	polyA_signal 302..307
ORIGIN 50..34; Score 165.4; DB 5; Length 318;	ORIGIN 50..34; Score 165.4; DB 5; Length 318;	ORIGIN 50..34; Score 165.4; DB 5; Length 318;	ORIGIN 50..34; Score 165.4; DB 5; Length 318;
Query Match	Query Match	Query Match	Query Match

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OM nucleic - nucleic search, using SW mode!

Run on: March 31, 2005, 14:38:32 ; Search time 256 Seconds (without alignment)

Title: US-10-719-623A-15

Perfect score: 329

Sequence: 1 cccctccatgttacatt.....cateaaatgtctttaaaaa 329

Scoring table: IDENTITY_NUC

Gapop 1.0 , Gapext 1.0

Searched: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100%

Listing first 45 summaries

Database : N_Genesegn_16Dec04 : *

1: genesegn1980s;*

2: genesegn1990s;*

3: genesegn2000s;*

4: genesegn2001s;*

5: genesegn2001bs;*

6: genesegn2002as;*

7: genesegn2002bs;*

8: genesegn2003as;*

9: genesegn2003bs;*

10: genesegn2003cs;*

11: genesegn2003ds;*

12: genesegn2004as;*

13: genesegn2004bs;*

Result No.	Score	Query Match Length	DB ID	Description
1	329	100.0	329 2 AAV07449	Aav07449 Rana temp
2	329	100.0	329 3 AAAF5750	Aaa75750 cDNA enco
3	210.8	64.7	323 2 AAV07447	Aav07447 Rana temp
4	203.8	61.9	356 2 AAV07448	Aav07448 Rana temp
5	46.8	14.2	341 13 ADR88992	Adr88992 Nucleotide
6	45	13.7	443 3 AAA75749	Aaa75749 cDNA enco
c 7	40.6	12.3	403 6 ABN7187	Abn7187 Human ORF
c 8	40.2	12.2	4414 10 ADC30694	Adc30694 Human nov
c 9	40.2	12.2	4804 5 ABY30199	Abv30199 Human pro
c 10	40	12.2	56153 4 AAS46794	Aas46794 Tumour su
c 11	39.4	12.0	8781 6 ABL32686	Abl32686 Human imm
c 12	39.2	11.9	64976 2 AAV21209_16	Continuation (17 o
c 13	38.6	11.7	4665 4 AA136639	AA136639 Probe; #53
c 14	38.6	11.7	4755 6 ABK52611	Abk52611 DNA encod
c 15	38.6	11.7	23934 4 AAK71442	Aak71442 Human imm
c 16	38.6	11.7	23934 4 AAL36171	Aal36171 Human mus
c 17	38.6	11.7	23934 4 ABL36179	Abl36179 Human mus
c 18	38.6	11.7	4 AL04522	Al04522 Human rep
c 19	38.6	11.7	4 AAS28343	Aas28343 Genomic s
c 20	38.6	11.7	23934 4 ABL97446	Abl97446 Human tes

ALIGNMENTS

RESULT 1	
ID	AAV07449 standard; cDNA; 329 BP.
XX	
AC	AAV07449;
XX	
DT	26-OCT-1998 (first entry)
XX	
DE	Rana temporaria temporin G cDNA.
XX	
KW	Temporin G; anti-microbial property; anti-fungal property; ss.
XX	
OS	Rana temporaria.
XX	
Key	Location/Qualifiers
CDS	53..238
FT	/*tag= a
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FT	53..118
sig_peptide	
FT	/*tag= b
mat_peptide	
FT	191..229
polyA_signal	
FT	/*tag= c
FT	323..327
FT	/*tag= d

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
1	329	100.0	329 2 AAV07449	Aav07449 Rana temp
2	329	100.0	329 3 AAAF5750	Aaa75750 cDNA enco
3	210.8	64.7	323 2 AAV07447	Aav07447 Rana temp
4	203.8	61.9	356 2 AAV07448	Aav07448 Rana temp
5	46.8	14.2	341 13 ADR88992	Adr88992 Nucleotide
6	45	13.7	443 3 AAA75749	Aaa75749 cDNA enco
c 7	40.6	12.3	403 6 ABN7187	Abn7187 Human ORF
c 8	40.2	12.2	4414 10 ADC30694	Adc30694 Human nov
c 9	40.2	12.2	4804 5 ABY30199	Abv30199 Human pro
c 10	40	12.2	56153 4 AAS46794	Aas46794 Tumour su
c 11	39.4	12.0	8781 6 ABL32686	Abl32686 Human imm
c 12	39.2	11.9	64976 2 AAV21209_16	Continuation (17 o
c 13	38.6	11.7	4665 4 AA136639	AA136639 Probe; #53
c 14	38.6	11.7	4755 6 ABK52611	Abk52611 DNA encod
c 15	38.6	11.7	23934 4 AAK71442	Aak71442 Human imm
c 16	38.6	11.7	23934 4 AAL36171	Aal36171 Human mus
c 17	38.6	11.7	23934 4 ABL36179	Abl36179 Human mus
c 18	38.6	11.7	4 AL04522	Al04522 Human rep
c 19	38.6	11.7	4 AAS28343	Aas28343 Genomic s
c 20	38.6	11.7	23934 4 ABL97446	Abl97446 Human tes

Peptides from the skin of the frog Rana temporaria - useful as anti-microbial or anti-fungal compositions.

PS Claim 11; Page 19; 27pp; English.

XX The present sequence represents the Rana temporaria temporin G cDNA isolated from a R. temporaria skin cDNA library. The cDNA encodes a temporin G peptide which has anti-microbial properties. The invention claims for other R. temporaria derived peptides which are claimed to be useful in medicaments for anti-microbial and anti-fungal use

XX Sequence 329 BP; 114 A; 62 C; 65 G; 88 T; 0 U; 0 Other;

Query Match Score 100.0%; Score 329; DB 2; Length 329;

Best Local Similarity 100.0%; Pred. No. 3.5e-80; Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Db 1 CCCCTCCACCTGCTTCACTCTCATACCTGAAACCAGCCCCAGGCCAAGATGTTCAC 60

Db 1 CCCCTCCACGTGCTCATACCTGAAACCAGCCCCAGGCCAAGATGTTCAC 60

Qy 61 CTTGAGAAATCCTCCCTACTCTTCTTCTTCTTCTCTCTCTCTCTGTA 120

Db 61 CTTGAGAAATCCTCCCTACTCTTCTTCTTCTCTCTCTCTCTGTA 120

Qy 121 GGAGAGAGAGATGCCATGAGAAGAGAGATGATCTGAGAACAGGATGTTGAGT 180

Db 121 GGAGAGAGAGATGCCATGAGAAGAGAGATGATCTGAGAACAGGATGTTGAGT 180

Qy 181 GGAAGGGATTTTCCAGTGTGATTGGAAAGGAGTCAATGGTATTTGGAAAATAAC 240

Db 181 GGAAGGGATTTTCCAGTGTGATTGGAAAGGAGTCAATGGTATTTGGAAAATAAC 240

Qy 241 AAAAAGGTTAACCTTGAAATGGAAATCATCTAATGTGAAATGTCAATTAG 300

Db 241 AAAAAGGTTAACCTTGAAATGGAAATCATCTAATGTGAAATGTCAATTAG 300

Qy 301 CTAAATGCACATCAAATGCTTAAAAA 329

Db 301 CTAAATGCACATCAAATGCTTAAAAA 329

RESULT 2

AAA75750 standard cDNA; 329 BP.

AC AAA75750;

XX 22-JAN-2001 (first entry)

DE CDNA encoding a temporin G precursor polypeptide.

KW Dermaseptin; antibacterial; fungal growth; temporin; transgenic plant; cationic peptide; pathogen resistance; 88.

XX Rana temporaria.

XX Key Location/Qualifiers

PH 53 .238

FT /*tag= a

FT /product= "temporin"

XX WO200053337-A1.

XX PD 21-SEP-2000.

XX PP 16-MAR-2000; 2000WO-CA000288.

XX PR 17-MAR-1999; 99US-0125072P.

XX (UVI-) UNIV VICTORIA INNOVATION & DEV CORP.

XX PI Mirra S; Kay WD;

XX DR; 2000-647077/62.

DR P-PSDB; AAB18737.

PS Transgenic plants resistant to broad spectrum of pathogens useful for producing biologically active cationic peptides, comprises nucleic acid molecule encoding temporin and/or dermaseptin peptides.

XX Disclosure; Page 49; 58pp; English.

XX The present sequence encodes a temporin precursor polypeptide. The CC specification also describes dermaseptin polypeptides. Temporin and CC dermaseptin have antibacterial activity. Dermaseptin also inhibits fungal CC growth. Cationic peptides derived from temporins and dermaseptins are CC used to produce transgenic plants. The transgenic plants are useful for CC producing biologically active cationic peptides such as temporins and CC dermaseptins in large quantities. The peptide confers broad spectrum CC pathogen resistance including enhanced resistance to both fungal and CC bacterial pathogens in the transgenic plants. The transgenic plants may CC be used in conventional agricultural applications such as food crops, CC medical and other applications

XX Sequence 329 BP; 114 A; 62 C; 65 G; 88 T; 0 U; 0 Other;

SQ Query Match Score 100.0%; Score 329; DB 3; Length 329;

Best Local Similarity 100.0%; Pred. No. 3.5e-80; Matches 329; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db 1 CCCCTCCACGTGCTTCACTCTCATACCTGAACTTCTGACCTTCAC 60

Qy 1 CTTGAGAAATCCTCCCTACTCTTCTTCTTCTCTCTCTGTA 120

Db 61 CTTGAGAAATCCTCCCTACTCTTCTTCTTCTCTCTCTGTA 120

Qy 121 GGAGAGAGAGATGCCATGAGAAGAGAGATGATCTGAGAACAGGATGTTGAGT 180

Db 121 GGAGAGAGAGATGCCATGAGAAGAGAGATGATCTGAGAACAGGATGTTGAGT 180

Qy 181 GGAAGGGATTTTCCAGTGTGATTGGAAAGGAGTCAATGGTATTTGGAAAATAAC 240

Db 181 GGAAGGGATTTTCCAGTGTGATTGGAAAGGAGTCAATGGTATTTGGAAAATAAC 240

Qy 241 AAAAAGGTTAACCTTGAAATGGAAATCATCTAATGTGAAATGTCAATTAG 300

Db 241 AAAAAGGTTAACCTTGAAATGGAAATCATCTAATGTGAAATGTCAATTAG 300

Qy 301 CTAAATGCACATCAAATGCTTAAAAA 329

Db 301 CTAAATGCACATCAAATGCTTAAAAA 329

RESULT 3

AAV07447 standard cDNA; 323 BP.

XX ID AAV07447;

XX AC AAV07447;

XX DT 26-OCT-1998 (first entry)

XX DE Rana temporaria cDNA.

XX KW Temporin B; anti-microbial property; anti-fungal property; 88.

XX OS Rana temporaria.

XX XX Key Location/Qualifiers

PH 53 .238

FT /*tag= a

FT /product= "Temporin B peptide"

XX FT sig_peptide

FT /*tag= b

FT mat_peptide

FT /*tag= c

FT polyA_signal

FT 307 .311

Location/Qualifiers	
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FT	Key
XX	CDS
FT	/*tag= a
FT	/product= "Temporin H peptide"
FT	/*tag= b
FT	79 . .144
FT	sig_peptide
FT	mat_peptide
FT	217 . .246
FT	/*tag= c
FT	polyA_signal
FT	339 . .344
FT	/*tag= d
XX	
PA	W09B25961-A1.
XX	PN
XX	PD 18-JUN-1998.
XX	PP 12-DEC-1997; 97WO-SE002075.
XX	PR 13-DEC-1996; 96SE-00004593.
XX	(SBLV-) SBL VACCIN AB.
XX	PI Barra D, Simmaco M;
XX	XX DR; 1998-362423/31.
XX	DR P-PSDB; AAW51841.
XX	PT Peptides from the skin of the frog Rana temporaria - useful as anti-microbial or anti-fungal compositions.
XX	PS Claim 11; Page 18; 27pp; English.
XX	CC The present sequence represents the Rana temporaria temporin B cDNA isolated from a R. temporaria skin cDNA library. The cDNA encodes a temporin B peptide which has anti-microbial properties. The invention claims for other R. temporaria derived peptides which are claimed to be useful in medicaments for anti-microbial and anti-fungal use
XX	SQ Sequence 323 BP; 119 A; 57 C; 64 G; 83 T; 0 U; 0 Other;
Query Match	64.7%; Score 212.8; DB 2; Length 323;
Best Local Similarity	83.4%; Pred. No. 2.5e-48;
Matches	257; Conservative 0; Mismatches 42; Indels 9; Gaps 1;
Db	22 TCTATAACCAACTGAAACCGGCCAACGGAAAGATGTTCACTTCGAAATTCCCTCTTACT 81
Db	6 TCTGAGCCAACTGAAACCCGACCCGACCCGAAAGATGTTCACTTCGAAATTCCCTGTAACT 65
Qy	82 CCTTTTCTCCTCTGGGACCATCACTTATCTCTGTGAGAAGAGATGCGATGA 141
Db	66 CCTCTTCTTCCTCTGGGACCATCACTTATCTCTGTGAGAAGAGATGCGATGA 125
Qy	142 AGAAAGAGAGATGATCTCGAAAGAAAGGGATGTTGAAGTGGAAAGGGATTTCCTCACT 201
Db	126 AGAAAGAGAGATGAAACCGATGAAAGGATGTTCAAGTGGAAAAACGACTTACCAAT 185
Qy	202 GATGGGAGGGATACTCAATGGTATTTGGAAATAACCAAAAAAGTTAAACTTGGA 261
Db	186 TGTGGAAACCTGCTCAAGCTGTGGAAATAACCA-----AAAATGTTAAG 236
Qy	262 ATGGGAAATTGGAAATCATCTAAATGGGAAATGTCATTAGCTAAATGCACATAATGCT 321
Db	237 ATGGGAAATTGGAAATCATCTGAATCTGTGAAATGCAACAGATGCT 296
Qy	322 TATTTAAA 329
Db	297 TATTTAAA 304
RESULT 4	
AAV07448	AAV07448 standard; cDNA; 356 BP.
ID	AAV07448
XX	Rana temporaria temporin H cDNA.
AC	AAV07448;
XX	DT 26-OCT-1998 (first entry)
XX	Rana temporaria temporin H; anti-microbial property; anti-fungal property; 88.
XX	KW Temporin H; anti-microbial property; anti-fungal property; 88.
XX	RESXX
RESULT 5	
ADR88892	ADR88892 standard; cDNA; 341 BP.
ID	ADR88892
XX	AC AAV07448;
XX	DT 311 AAV07448;
XX	DB 259 -----AAATGTTAAAGATGGATTTGAAATCTTCATAAAA 329
Qy	303 AAATGCACATCAAATGTCCTTATAAAA 329
DB	311 AAATGCACATCAAATGTCCTTATAAAA 337

XX 18-NOV-2004 (first entry)

XX Nucleotide sequence of tryptophyllin-1 designated Pdt-1.

XX tryptophyllin-1; Pdt-1; vasodilatory; frog; defensive skin secretion;

XX vasodilation; ischaemic heart disease; ischaemic disease;

XX vascular stenosis; occlusion; hypertension; transplant; graft;

XX spinal cord injury; cardiovascular disease; arterial smooth muscle;

XX central nervous system disorder; infection; inflammation; cancer; tumour;

XX Hodgkin's disease; non-Hodgkin's lymphoma; multiple myeloma;

XX haematopoietic malignant; glaucoma; pulmonary hypertension; stroke;

XX atherosclerosis; asthma; ophthalmologic disease; renal failure;

XX menstrual disorder; obstetric condition; wound; gastroenteric disease;

XX anaphylactic shock; endotoxic shock; ss.

XX Pachymedusa dacnicolor.

XX	Key	Location/Qualifiers
XX	CDS	55 . 243
FT		/*tag= b
FT		/product= "tryptophyllin-1"
FT		55 . 114
FT		/*tag= a
FT		mat_peptide
FT		115 . 240
FT		/*tag= c
XX		W02004074312-A2.
XX		PN
PD		02-SEP-2004.
XX		04-FEB-2004; 2004WO-IB000806.
XX		05-FEB-2003; 2003GB-00002621.
PR		06-JUN-2003; 2003GB-00012930.
XX	(DUL-) UNIV ULSTER.	
PA	(SHAW /) SHAW C.	
PA	(HIRS /) HIRST D.	
PA	(CHEN /) CHEN T.	
PA	(OROU /) O'ROURKE M.	
XX	Shaw C.	PI
XX	Hirst D.	PI
XX	Chen T.	PI
XX	O'rourke M.	PI
XX		WPI; 2004-612491/62.
XX		DR-P-PSDB; ADR88893.
XX		PN
PT		Isolated tryptophyllin peptide obtained from biologically active analog
PT		of Pachymedusa dacnicolor tryptophyllin-1, having vasodilatory activity,
PT		useful for treating conditions of vascular insufficiency e.g., ischemic
PT		heart disease.
XX	Claim 49; SEQ ID NO 17; 55pp; English.	
XX	The present sequence encodes a full length tryptophyllin-1, derived from	
CC	Pachymedusa dacnicolor and designated Pdt-1. The specification describes	
CC	tryptophyllin-1 Peptides and Pdt-1 analogues which have a vasodilatory	
CC	activity. Tryptophyllin-1 Peptides are isolated from frog defensive skin	
CC	secretions. Tryptophyllin-1 Peptides of the invention are useful for	
CC	preparing a medicament for treating disorders where vasodilation is	
CC	beneficial, such as ischaemic heart disease, ischaemic disease of other	
CC	organs or organ systems, vascular stenoses, occlusion to peripheral	
CC	vessels, or hypertension, and for increasing the transport of	
CC	biologically active compounds across the blood-brain barrier, where the	
CC	anti-cancer drug. They are useful for	
CC	promoting angiogenesis, for treating conditions of vascular	
CC	insufficiency, to promote healing at sites of transplantation and	
CC	grafting, and for treating spinal cord injuries. They are also useful for	
CC	treating cardiovascular disease, for increasing vasodilation, for	
CC	treating hypertension, for dilating arterial smooth muscle. In	
CC	combination with other therapeutic agents, Peptides of the invention are	
CC	useful for treating disorders in the brain including central nervous	

Query Match 341 BP; 132 A; 55 C; 74 G; 80 T; 0 U; 0 Other:

Score 14.1%; DB 13; Length 341;

Best Local Similarity 60.0%; Pred. No. 0.0089;

Matches 78; Conservative 0; Mismatches 52; Indels 0; Gaps 0;

Qy 44 AGCCCCAAAGAGTTCACTTGTGAAATCCCCTCTACTCCCTTCCTGGACCATC 103

Db 46 AGACCAATAATACTTAATTCTTGAGAGTGCGTTTCCTCGATTCGTT 105

Qy 104 AACATATCTCTCTGAGGAGAGAGATGCCGATGAAGAAGAGATGATCGAA 163

Db 106 TCCATTCCTCTGATGAGAGATGAGGATGAGGATGAGGATGAGGAG 165

Qy 164 GAAAGGGATG 173

Db 166 GAAAAGAAAG 175

RESULT 6

AAA75749 standard; cDNA; 443 BP.

ID AAA75749

XX XX AC AAA75749;

XX DT 22-JAN-2001 (first entry)

XX DE CDNA encoding a dermaseptin precursor polypeptide.

XX KW Dermaseptin; antibacterial; fungal growth; temporin; transgenic plant; cationic peptide; pathogen resistance; ss.

XX OS Phyllomedusa bicolor.

XX Key FH Location/Qualifier

XX CDS FT 58 . 294

XX CDS FT /*tag= a

XX CDS FT /*tag= "dermaseptin"

XX PN WO200053337-A1.

XX PN 21-SEP-2000.

XX PR 16-MAR-2000; 2000WO-CA000288.

XX PR 17-MAR-1999; 99US-0125072P.

XX PA (UVM-) UNIV VICTORIA INNOVATION & DEV CORP.

XX PA Misra S, Kay WD;

XX DR WPI; 2000-647077/62.

XX DR P-PSDB; AAB18724.

XX PR Transgenic plants resistant to broad spectrum of pathogens useful for producing biologically active cationic peptides, comprises nucleic acid molecule encoding temporin and/or dermaseptin peptides.

XX Disclosure; Page 46: 58pp; English.

CC The present sequence encodes a dermaseptin precursor polypeptide. The

CC precursor is processed to produce two mature forms, dermaseptin b

CC (AAB18725) and dermaseptin B (AAB18726). Dermaseptin has antibacterial

CC activity, and inhibits fungal growth. Cationic peptides derived from

CC temporins and dermaseptins are used to produce transgenic plants. The

transgenic plants are useful for producing biologically active cationic peptides such as temporins and dermaseptins in large quantities. The peptide confers broad spectrum pathogen resistance including enhanced resistance to both fungal and bacterial pathogens in the transgenic plants. The transgenic plants may be used in conventional agricultural applications such as food crops, medical and other applications

Sequence 443 BP; 211 A; 60 C; 77 G; 95 T; 0 U; 0 Other;

Query Match Score 45; DB 3; Length 443;
Best Local Similarity 13.7%; Pred. No. 0.03;
Matches 66; Conservative 0; Mismatches 35; Indels 0; Gaps 0;

Qy 44 AGCCCAAAGATGTCACCTGAGAAATTCTCTTACTCTTCTTCCTGGGACCATC 103
Db 49 AGAACAAATGATGATATCTTGAGAATTTCTTCTCTTGATGTTATCTGATTTGCT 108

Qy 104 AACCTATCTCTCTGTGAGGAAGAGAGATGCCGATGAGA 144
Db 109 TCCCTTCCATCTGTGAGAAAGAGAAAATGAGA 149

RESULT 7
ABN77187/C ID ABN77187 Standard; cDNA; 403 BP.
AC ABN77187;
XX DT 08-JUL-2002 (first entry)
XX DE Human ORP2134 cDNA, SEQ ID NO:4267.
XX

Human; ORF; open reading frame; ORFX; drug screening; diagnosis;
disease monitoring; cytokine; cell proliferation; cell differentiation;
immune modulation; haematopoiesis regulation; tissue growth;
angiogenesis; activin; inhibit; chemoblastic; haemostatic;
thrombolytic; tumour inhibition; bodily characteristic; fertility;
behaviour; cancer; proliferative disorder; neurological disorder;
cardiovascular disease; immune system disorder; organ transplantation;
tissue growth disorder; tissue regeneration disorder; diabetes mellitus;
hypothyroidism; cholesterol ester storage disease; infection; vulnerability;
vasotropics; anti-isoprotic; antidiabetic; cytosatric; nootropic;
neuroprotective; antiatherosclerotic; anti-coagulant; thrombolytic;
cardiac; hypotensive; antithyroid; antiinflammatory; immunomodulator;
dermatological; analgesic; virucide; antibacterial; fungicide; gene; ss.
Homo sapiens.
XX WO20019366-A2.
XX PD 29-NOV-2001.
XX PR 24-MAY-2000; 2000US-0206690P.
XX PA (CURA-) CURAGEN CORP.
XX Leach MD, Shimkets RA;
XX DR WPI; 2002-106200/14.
XX P-PSDB; ABP3161.

XX Novel human polypeptides and polynucleotides useful for diagnosing,
PT preventing and treating cardiovascular disease, neurodegenerative,
PT hyperproliferative disorders and disorders related to organ
PT transplantation.
XX Claim 1; Page 1323; 2508pp; English.
XX Sequences ABP31028-ABP35561 represent 4534 novel human proteins
CC designated ORF (open reading frame) 1-4534, and sequences ABN75054-
CC ABN79387 represent cDNAs encoding them. The invention also encompasses

polypeptides at least 80% identical to the ORF1-ORF454 (collectively referred to as ORFX) proteins, polynucleotides at least 85% identical to the ORFX nucleic acid sequences, vectors and host cells comprising ORFX polynucleotides, the recombinant production of ORFX proteins, antibodies specific for ORFX proteins, methods of detecting ORFX polymucleotides and polypeptides, methods of screening for modulators of ORFX expression or activity, and methods of screening individuals for a predisposition to an ORFX-associated disorder. The ORFX proteins of the invention have a wide range of biological activities, such as cytokine, cell proliferation, cell differentiation, immune modulation, haematopoiesis regulation, tissue growth, angiogenesis, activin or inhibit activity, chemoblastic/chemokinetic activity, haemostatic activity, thrombolytic receptor/ligand, antiinflammatory activity, tumour inhibition activity, CC of bodily characteristics, fertility and behaviour. ORFX proteins, CC nucleic acids and antibodies may be used in the treatment of cancers, CC other proliferative disorders such as psoriasis and benign tumours, CC neurological disorders such as epilepsy and Alzheimer's disease, CC cardiovascular diseases, immune system disorders, disorders related to CC organ transplantation, disorders of tissue growth and regeneration, CC diseases such as diabetes mellitus, hypothyroidism, and cholesterol ester storage disease, and infectious diseases caused by viral, bacterial, CC fungal and other pathogens. ORFX nucleic acids may also be used as a source of primers and probes, in the detection of ORFX genomic sequences CC or transcripts, in the identification and cloning of homologous CC sequences, in genetic diagnosis, and in forensic biology. The ORFX nucleic acids may additionally be used to produce transgenic animals CC which may be useful for studying the function and/or activity of ORFX protein, and in drug screening. The ORFX proteins may also be used as CC immunogens to generate specific antibodies, which are useful in the CC diagnosis, treatment and monitoring of ORFX-associated diseases XX

Sequence 403 BP; 106 A; 71 C; 73 G; 153 T; 0 U; 0 Other;

Query Match Score 40.6; DB 6; Length 403;
Best Local Similarity 51.4%; Pred. No. 0.47;
Matches 94; Conservative 0; Mismatches 89; Indels 0; Gaps 0;

Qy 144 AATGAGAGATGATGATCTCGAAGAAAGGGATGTTGAAAGTGA 203
Db 293 ATACAATGATCATGATGAAATCTGATGGCTCATGTAAGCACTTTCTCAGCTT 234

Qy 204 TTGGAGGATACTCATGGATTGGAATAACCAAAAAGTTAAACTTGGAAA 263
Db 233 TAGTAAATAATTCTGATTTGAGAAGATAAAAGTAAATGATGAGA 174

Qy 264 TGGGATTGGAATACTCATTAATGGAATGTCAATTAGCTAAATGCTTA 323
Db 173 CAACAGCTCATGAGTATAAGAAATGGATATTCATGGACATAGATGCTCA 114

Qy 324 TAA 326
Db 113 TCA 111

RESULT 8
ADC30694 ID ADC30694 standard; cDNA; 4414 BP.
XX AC ADC30694;
XX DT 18-DEC-2003 (first entry)
XX Human novel cDNA sequence, SBO ID NO:776.
XX Human; diagnostic; drug screening; forensics; gene mapping;
KW biodiversity assessment; Parkinson's disease; Alzheimer's disease;
KW neurodegenerative diseases; anaemia; platelet disorder; wound; burns;
KW ulcers; osteoporosis; autoimmune disease; cancer;
KW molecular weight marker; food supplement; anti-parkinsonian; nootropic;
KW neuroprotective; anti-anaemic; anti-coagulant; thrombolytic; vulnerable;
KW antiulcer; osteopathic; immunosuppressive; antiinflammatory; cytostatic;
KW gene therapy; chromosome 1; gene; ss.

XX OS Homo sapiens .
 XX WO200309271-A2.
 XX 10-APR-2003.
 XX PP 24-SEP-2002; 2002WO-US030474.
 XX PR 24-SEP-2001; 2001US-0324631P.
 XX PA (HYSE -) HYSEQ INC.
 XX Tang TY, Zhang J, Ren F, Xue AJ, Zhao QA, Wang J, Wehrman T;
 PI Zhou P, Ghosh M, Wang D, Ma Y, Asundi V, Wang Z, Weng G;
 PI Haley-Vicente D, Drmanac RT;
 XX WPI; 2003-371981/35.
 DR P-PSDB; ADC31665.
 XX New polynucleotide and polypeptide useful for diagnosing, preventing or
 PT treating conditions such as neurodegenerative diseases, anemias, platelet
 PT disorders, wounds, burns, ulcers, osteoporosis, autoimmune diseases or
 PT cancer.
 XX SEQ ID NO 776; 1185pp; English.
 XX The invention relates to 971 novel human cDNA sequences (ADC29919-
 CC ADC30881) and the Polypeptides they encode (ADC30890-ADC31860). The
 CC invention also relates to nucleic acid sequences over 99% identical with
 CC the novel human cDNAs. The invention additionally encompasses expression
 CC vectors and host cells comprising a nucleic acid of the invention, the
 CC recombinant production of a polypeptide of the invention, an antibody
 CC against a polypeptide of the invention; a method of detecting or
 CC identifying a compound which binds to a polypeptide of the invention. The
 CC invention further discloses methods of preventing, treating or
 CC ameliorating a medical condition, kits comprising polynucleotide probes
 CC and/or monoclonal antibodies for carrying out the methods of the
 CC invention; methods for the identification of compounds that modulate the
 CC expression or activity of the polynucleotide and/or polypeptide; and 767
 CC contig sequences corresponding to the cDNA sequences of the invention
 CC (ADC31851-ADC3262) and the polypeptides encoded by the contigs (ADC32628
 CC -ADC3334). The nucleic acids and polypeptides of the invention are
 CC used in diagnostics, drug screening, forensics, gene mapping, in the
 CC identification of mutations responsible for genetic disorders or other
 CC traits, for assessing biodiversity, and in producing many other types of
 CC data and products dependent on DNA and amino acid sequences. They are
 CC also used for treating diseases such as Parkinson's disease, Alzheimer's
 CC disease and other neurodegenerative diseases, anaemia, platelet
 CC disorders, wounds, burns, ulcers, osteoporosis, autoimmune diseases or
 CC cancer. The nucleic acids may also be used as hybridisation probes or
 CC primers, and in the recombinant production of a protein. The polypeptides
 CC are also useful in generating antibodies, as molecular weight markers,
 CC and as food supplements. The present sequence represents a specifically
 CC claimed human cDNA sequence of the invention. Note: The sequence data for
 CC this patent did not form part of the printed specification, but was
 CC obtained in electronic format directly from WIPO at
 CC ftp.wipo.int/pub/published.pat_sequences.
 XX Sequence 4414 BP; 1497 A; 828 C; 1167 G; 922 T; 0 U; 0 Other;
 SQ 12.2%; Score 40.2; DB 10; Length 4414;
 Best Local Similarity 54.4%; Pred. No. 1.5;
 Matches 81; Conservative 0; Mismatches 68; Indels 0; Gaps 0;
 Qy 120 AGGAAGAGAGAGATGCCGTGAAAGAGAGATGATCTCGAGAANGGGATGTTGAAAG 179
 Db 2220 AGGPAGAGAAAGAAAGAAAGAGAGAGACTAGGAAAGGGAGAACAGGGC 2279
 Qy 180 TGAAAAGCCATTTCAGTGTGAGGATACTCATGTTGGAAATAAC 239
 Db 2280 AGGAGAAGAGGAATCAGGAGACTGCGAAATTCCCTTAGTGAGAAATAGAAA 2339

XX Qy 240 CAAAAAAAGTTAAACCTTTGGAATGGAA 268
 Db 2340 CAAAGATGAAAGAAATGGATAAGAA 2368

RESULT 9
 ABV30199
 ID ABV30199 standard; cDNA: 4804 BP.
 XX
 AC ABV30199;
 XX DT 16-SEP-2002 (first entry)
 DE Human prostate expression marker cDNA 30190.
 XX Human; prostate cancer; cytostatic; carcinogen; pharmacogenomic marker;
 KW KW pharmacogenomic marker; gene; ss.
 XX Homo sapiens.
 OS XX WO20160860-A2.
 PN XX WO20160860-A2.
 PD XX 23-AUG-2001.
 XX XX 20-FEB-2001; 2001WO-US005171.
 PF XX 17-FEB-2000; 2000US-0183319P.
 PR PR 16-MAR-2000; 2000US-0189863P.
 PR PR 25-MAY-2000; 2000US-0207454P.
 PR PR 09-JUN-2000; 2000US-0211314P.
 PR PR 18-JUL-2000; 2000US-0219007P.
 PR PR 13-DEC-2000; 2000US-0255281P.

XX (MILL-) MILLENNIUM PREDICTIVE MEDICINE INC.
 PA Novel isolated nucleic acid molecule associated with cancerous state of
 PT prostate cells and correlating with presence of prostate cancer, useful
 PT for detecting presence of prostate cancer, stage of prostate cancer.
 XX
 PI Schlegel R, Endge WO, Monahan JE;
 WPI; 2001-662795/76.
 XX
 DR WPI; Page 6542-6543; 11750pp; English.
 XX The invention relates to an isolated nucleic acid molecule (I) comprising
 CC a nucleotide sequence given in Tables 1-9 (ABV00010-ABV6213) of the
 CC specification or its complement, (II) is useful for: (a) assessing whether
 CC a patient is afflicted with prostate cancer; (b) monitoring the
 CC progression of prostate cancer in a patient; (c) assessing the efficacy
 CC of a test compound to inhibit prostate cancer in a patient; (d) assessing
 CC the efficacy of a therapy for inhibiting prostate cancer in a patient;
 CC (e) selecting a composition for inhibiting prostate cancer in a patient;
 CC (f) assessing the prostate cell carcinogenic potential of a compound; (g)
 CC determining whether prostate cancer has metastasized in a patient; (h)
 CC assessing the aggressiveness or indolence of prostate cancer in a patient
 CC ; (i) is also useful as a pharmacogenomic marker
 XX SQ Sequence 4804 BP; 1605 A; 910 C; 1244 G; 1016 T; 0 U; 29 Other;
 Query Match 12.2%; Score 40.2; DB 5; Length 4804;
 Best Local Similarity 54.4%; Pred. No. 1.5;
 Matches 81; Conservative 0; Mismatches 68; Indels 0; Gaps 0;
 Qy 120 AGGAGAGAGATGCCGTGAAAGAGAGATGATCTCGAGAANGGGATGTTGAAAG 179
 Db 2074 AGGTAGAGAAAGAAAGAGAGACTAGGAAAGGGAGAACAGGGC 2133
 Qy 180 TGAAAAGCCATTTCAGTGTGAGGATACTCATGTTGGAAATAAC 239
 Db 2134 AGGAGAAGAGGAATCAGGAGACTGCGAAATTCCCTTAGTGAGAAATAGAAA 2193

PR 08-DEC-2000; 2000US-025190P.
 PR 11-DEC-2000; 2000US-0251097P.
 PR 05-JAN-2001; 2001US-0255978P.
 XX
 (HUMA-) HUMAN GENOME SCI INC.
 PA
 XX
 PI Rosenthal CA, Barash SC, Ruben SM;
 XX
 DR WPI; 2001-483456/52.
 XX
 Nucleic acids encoding human immune/haematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.
 PT
 Disclosure; SEQ ID NO 26254; 3071pp + Sequence Listing; English.
 XX
 PS
 XX
 AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I) amino acid sequences given in AAM8170 to AAM91921. (I) have cytotoxic activity, and can be used in gene therapy and vaccine production. (II) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patient's own production of (II). Additionally, (I) polynucleotides may be used to produce the secreted (II), by inserting the nucleic acids into a host cell and allowing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic-derived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK54942 to AAK54950 and AAM82169 represent sequences used in the exemplification of the present invention

PR 02-OCT-2000; 2000US-0236367P.
 PR 02-OCT-2000; 2000US-0236368P.
 PR 02-OCT-2000; 2000US-0236369P.
 PR 02-OCT-2000; 2000US-0236370P.
 PR 02-OCT-2000; 2000US-0236371P.
 PR 02-OCT-2000; 2000US-0237037P.
 PR 02-OCT-2000; 2000US-0237038P.
 PR 02-OCT-2000; 2000US-0237039P.
 PR 13-OCT-2000; 2000US-0237040P.
 PR 13-OCT-2000; 2000US-0239935P.
 PR 13-OCT-2000; 2000US-0239937P.
 PR 20-OCT-2000; 2000US-0240960P.
 PR 20-OCT-2000; 2000US-0241122P.
 PR 20-OCT-2000; 2000US-0241785P.
 PR 20-OCT-2000; 2000US-0241786P.
 PR 20-OCT-2000; 2000US-0241787P.
 PR 20-OCT-2000; 2000US-0241808P.
 PR 20-OCT-2000; 2000US-0241809P.
 PR 08-NOV-2000; 2000US-0241826P.
 PR 01-NOV-2000; 2000US-0244611P.
 PR 08-NOV-2000; 2000US-0246474P.
 PR 08-NOV-2000; 2000US-0246475P.
 PR 08-NOV-2000; 2000US-0246476P.
 PR 08-NOV-2000; 2000US-0246477P.
 PR 08-NOV-2000; 2000US-0246478P.
 PR 08-NOV-2000; 2000US-0246523P.
 PR 08-NOV-2000; 2000US-0246524P.
 PR 08-NOV-2000; 2000US-0246525P.
 PR 08-NOV-2000; 2000US-0246526P.
 PR 08-NOV-2000; 2000US-0246527P.
 PR 08-NOV-2000; 2000US-0246528P.
 PR 08-NOV-2000; 2000US-0246532P.
 PR 08-NOV-2000; 2000US-0246609P.
 PR 08-NOV-2000; 2000US-0246610P.
 PR 08-NOV-2000; 2000US-0246611P.
 PR 08-NOV-2000; 2000US-0246613P.
 PR 17-NOV-2000; 2000US-0249207P.
 PR 17-NOV-2000; 2000US-0249208P.
 PR 17-NOV-2000; 2000US-0249209P.
 PR 17-NOV-2000; 2000US-0249210P.
 PR 17-NOV-2000; 2000US-0249211P.
 PR 17-NOV-2000; 2000US-0249212P.
 PR 17-NOV-2000; 2000US-0249213P.
 PR 17-NOV-2000; 2000US-0249214P.
 PR 17-NOV-2000; 2000US-0249215P.
 PR 17-NOV-2000; 2000US-0249216P.
 PR 17-NOV-2000; 2000US-0249217P.
 PR 17-NOV-2000; 2000US-0249218P.
 PR 17-NOV-2000; 2000US-0249245P.
 PR 17-NOV-2000; 2000US-0249264P.
 PR 01-DEC-2000; 2000US-0250160P.
 PR 01-DEC-2000; 2000US-0250191P.
 PR 05-DEC-2000; 2000US-0251030P.
 PR 05-DEC-2000; 2000US-0251988P.
 PR 05-DEC-2000; 2000US-0255719P.
 PR 06-DEC-2000; 2000US-025149P.
 PR 08-DEC-2000; 2000US-0251856P.
 PR 08-DEC-2000; 2000US-0251868P.
 PR 08-DEC-2000; 2000US-0251989P.

PR 08-DEC-2000; 2000US-025190P.
 PR 11-DEC-2000; 2000US-0251097P.
 PR 05-JAN-2001; 2001US-0255978P.
 XX
 (HUMA-) HUMAN GENOME SCI INC.
 PA
 XX
 PI Rosenthal CA, Barash SC, Ruben SM;
 XX
 DR WPI; 2001-483456/52.
 XX
 Nucleic acids encoding human immune/haematopoietic antigen polypeptides, useful for preventing, diagnosing and/or treating cancers and metastasis.
 PT
 Disclosure; SEQ ID NO 26254; 3071pp + Sequence Listing; English.
 XX
 PS
 XX
 AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I) amino acid sequences given in AAM8170 to AAM91921. (I) have cytotoxic activity, and can be used in gene therapy and vaccine production. (II) proteins and polynucleotides may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate (I) expression. For example, they may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (I) by expressing inactive proteins or to supplement the patient's own production of (II). Additionally, (I) polynucleotides may be used to produce the secreted (II), by inserting the nucleic acids into a host cell and allowing the cell to express the protein. (I) proteins and polynucleotides may be used to prevent, diagnose and treat immune/haematopoietic-related diseases, especially cancers and cancer metastases of haematopoietic-derived cells. AAK64703 to AAK87694 represent human immune/haematopoietic antigen genomic sequences from the present invention. AAK54942 to AAK54950 and AAM82169 represent sequences used in the exemplification of the present invention

Sequence 23934 BP; 7023 A; 4365 C; 4761 G; 7785 T; 0 U; 0 Other;

Query Match 11.7%; Score 38.6; DB 4; Length 23934;
 Best Local Similarity 47.3%; Pred. No. 7.5;
 Matches 116; Conservative 0; Mismatches 129; Indels 0; Gaps 0;

Qy 56 TTGACCTGTAGAAATCCCTCTACTCCTTCTGGACCATCAACTTATCTCTC 115
 Db 4567 TTTTCATATAAAATTTTTTAATTTCGAGATGATGAACTTGATCTGTG 4508

Qy 116 TG TGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGATGATCTCGAGAAAGGGATGTT 175

Db 4507 CTTCACATTAACGGTTACAGGTACAGTAACAGAACCTTGAGGAATATAGATACTGT 4448

Qy 176 GAAGTGGAAAAGGGATTTTCAGTGTAGGAAAGGATACTCATGGTATTGGAAAAA 235

Db 4447 CAAAGTAAAAAAAGATAAAATTCATGAGTGCATCTGAAGTCATCTTAAGTTAAT 4388

Qy 236 TAACCAGAAAAAGTTAAACCTTGGAAATGGAATCATCTAAATGTGGAAATGTCA 295

Db 4387 GGTTTAAAGATTAATTTGGTAAAGTCATAAAATCAAGTCAATGAGTCA 4328

Qy 296 TTGAG 300

Db 4327 TATTC 4323

Search completed: March 31, 2005, 17:34:10
 Job time : 262 secs